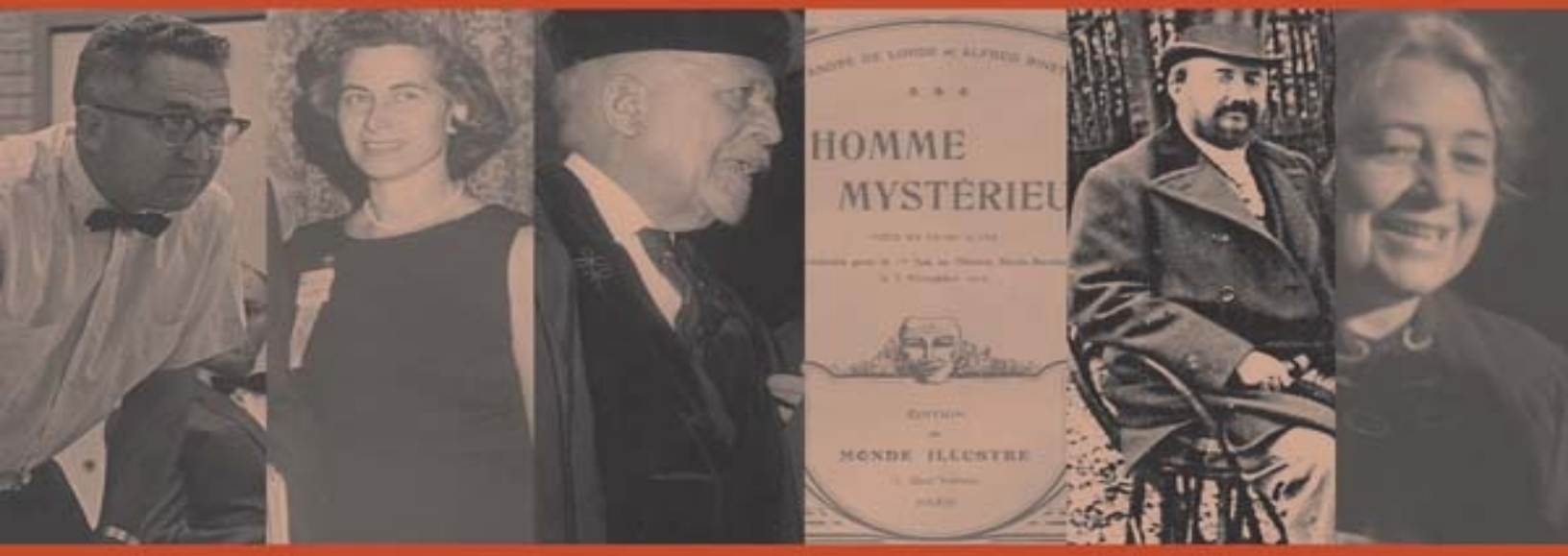
a century of contributions to gifted education

illuminating lives



edited by Ann Robinson & Jennifer L. Jolly

tag The Association for the Gifted
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NATIONAL ASSOCIATION FOR Gifted Children

ROUTLEDGE

a century of contributions to gifted education

illuminating lives

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tag The Association *for the* Gifted

NATIONAL ASSOCIATION FOR

ROUTLE

A CENTURY OF CONTRIBUTIONS TO GIFTED EDUCATION

A Century of Contributions to Gifted Education traces the conceptual history of the field of gifted education. Bookended by Sir Francis Galton's *Hereditary Genius* of 1869 and Sidney Marland's report to the United States Congress in 1972, each chapter represents the life and work of a key figure in the development of the field.

While the historical record of gifted education has previously been limited, *A Century of Contributions to Gifted Education* explores the lives of individuals who made fundamental contributions in the areas of eminence, intelligence, creativity, advocacy, policy, and curriculum. Drawing heavily on archival research and primary source documentation, expert contributors highlight the major philosophical, theoretical, and pedagogical developments in gifted education over the course of a century, providing both lively biography and scholarly analysis.

Ann Robinson is Professor of Educational Psychology and Director of the Jodie Mahony Center for Gifted Education at the University of Arkansas at Little Rock.

Jennifer L. Jolly is Associate Professor of Gifted Education at Louisiana State University.

A CENTURY OF CONTRIBUTIONS TO GIFTED EDUCATION

Illuminating Lives

Edited by Ann Robinson and Jennifer L. Jolly

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CONTENTS

Acknowledgments

Foreword
Abraham J. Tannenbaum

Foreword
Julia Link Roberts, Ed.D.

Foreword
Tracy L. Cross, Ph.D.

Contributors

1 Biography, History, and Pioneering Ideas: Illuminating Lives
Ann Robinson

2 Sir Francis Galton: The Victorian Polymath (1822–1911)
Joyce Van Tassel-Baska

3 Alfred Binet: A Creative Life in Measurement and Pedagogy (1857–1911)
Maria Pereira Da Costa, Franck Zenasni, Serge Nicolas, and Todd Lubart

4 William Edward Burghardt Du Bois and the Talented Tenth (1868–1963)
Frank C. Worrell

5 Great Investigators
Jennifer L. Jolly

6 Lewis M. Terman: A Misunderstood Legacy (1877–1956)
Daniel L. Winkler and Jennifer L. Jolly

7 Leta Stetter Hollingworth: A Life in Schools (1886–1939)
Holly Hertberg-Davis

8 Catharine Morris Cox Miles and the Lives of Others (1890–1984)
Ann Robinson and Dean Keith Simonton

9 Creativity, Cultural Diversity, and Crisis
Jennifer L. Jolly

10 Paul Witty: A Gentleman Scholar (1898–1976)
Jennifer L. Jolly and Jennifer H. Robins

11 Dr. Martin D. Jenkins: A Voice to be Heard (1904–1978)
Joy Lawson Davis

12 Calvin W. Taylor: A Man of Many Talents (1915–2000)
Leo Nora M. Cohen, Kathy D. Austin, and Rebecca H. Odoardi

13 Illuminating Our Understanding of Creativity: The Life and Legacy of E. Paul Torrance (1915–2003)
Thomas P. Hébert

14 Kazimierz Dabrowski: A Life of Positive Maladjustment (1902–1980)
Marjorie M. K. Battaglia, Sal Mendaglio, and Michael M. Piechowski

15 Building Practice, Advocacy, and Policy
Ann Robinson

16 Miriam L. Goldberg: A Scholar of First Rank (1916–1996)
James H. Borland

17 A. Harry Passow: Curriculum, Advocacy, and Diplomacy for Talent Development (1920–1996)
Ann Robinson, Bronwyn MacFarlane, and Debbie Dailey

18 Virgil S. Ward: An Axiomatic Approach to Work and Life (1916–2003)
Suzanna E. Henshon

19 Ruth May Strang: Leading Advocacy for the Gifted (1895–1971)
Leonie Kronborg

20 Ann Fabe Isaacs: She Made Our Garden Grow (1920–2001)
Karen B. Rogers

21 Mary M. Meeker: A Deep Commitment to Individual Differences (1921–2003)
Jane Piirto and Susan Keller-Mathers

22 Sidney P. Marland Jr.: The Commissioner (1914–1992)
Jennifer L. Jolly and Michael S. Matthews

23 Concluding Thoughts on a Century of Contributions to Gifted Education
Ann Robinson and Jennifer L. Jolly

Index

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We have also had the assistance of colleagues, friends, and family members in a variety of ways. Ellis Oliver Jones assisted us in our inquiries about Catharine Cox Miles. Michael Passow answered questions about his father as did Harry Passow's colleague Dr. Abraham Tannenbaum. We thank Marjorie Siegel of the Department of Curriculum and Teaching for her successful efforts to locate the elusive photograph of Drs. Passow and Goldberg. Dr. Maurice Fisher provided information about Virgil Scott Ward and led us to Rebecca Ward and the location of her father's papers. Kathi Kearney provided the image of Leta Hollingworth and children from her

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The editorial team at Routledge are consummate professionals. Our thanks go to Lane Akers for his early interest in the *Illuminating Lives* project and to Alex Masulis and Madeleine Hamlin for guiding the work to completion.

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Jennifer L. Jolly, Baton Rouge, LA

FOREWORD

Abraham J. Tannenbaum

PROFESSOR EMERITUS OF EDUCATION AND PSYCHOLOGY
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It is a pleasure for me to herald this book into being for a few reasons. For one, my friend and mentor A. Harry Passow is included here. I still vividly remember the day I interviewed to be his research assistant. Working with Harry and the delightful Miriam Goldberg (another illuminated life within the contents of this book) will remain treasured memories as we created what was to become the Talented Youth Project. Secondly, I have had the pleasure of working with Ann Robinson and watching her develop as an important leader in the field. Last, but not least, this book can help shape gifted education by borrowing from past research, ongoing research, and projecting into the future. For example, one will note that an interest in the biographies of eminent people has a history that formed one of this field's earliest contributions to curriculum. The gifted students taught by Leta Hollingworth (illuminated in another chapter) studied the biographies of eminent individuals and synthesized their learning into creative products that continue, to this day, to impress. Gifted education curriculum often includes the study of leaders and contributors in all fields. The authors in *Illuminated Lives* have extended this practice by demonstrating the richness of primary resources as biographical research tools that can also outline the birth of a field.

A field that examines its history increases its opportunities to shape the future. In *Illuminating Lives*, Ann Robinson and Jennifer L. Jolly have conceptualized a unique scholarly investigation into the lives and work of important contributors to our foundational theories, our large-scale research studies, and our ideological and practical fascinations and achievements.

Using the lens of history, the materials and strategies of documentary research, and the art of biography, the authors have painted portraits of important and interesting thinkers and activists who built the field. They focused on individuals whose lives are preserved in archives and private collections to afford an evidentiary base for their chapters. Some of the key figures are well-known psychologists and educators who have influenced a broad swath of disciplines and schools of thought. Others contributed to psychology or to education with multiple lines of research. Several of the figures contributed to the study of creativity and creative lives. Still others provided much-needed practical and philosophical work through advocacy, legislation, and administration.

By standing on the shoulders of this first century of work, we might better assess our ongoing debates and clarify the political challenges of the 21st century. As such, this book is also useful to those involved in general education. The hidden gems of scholarship that were uncovered by the authors and their insightful explanations that address past practice may help fortify the needed collaboration between general education and gifted education practitioners. Perhaps the future will address the issue I find most compelling: that giftedness is perceived as incompatible with equality. As much as we try to squeeze giftedness into the limits of equality, it just doesn't fit—unless gifted children are seen as having equal rights to a challenging education appropriate to their special needs.

FOREWORD

Julia Link Roberts, Ed.D.

MAHURIN PROFESSOR OF GIFTED EDUCATION
WESTERN KENTUCKY UNIVERSITY
PRESIDENT, THE ASSOCIATION FOR THE GIFTED (TAG)
COUNCIL FOR EXCEPTIONAL CHILDREN

What an honor it is to write a foreword for *Illuminating Lives*! Ann Robinson and Jennifer L. Jolly are both editors of this important book and authors as well. They conceptualized a book like no other in the field of gifted education. They gathered together a small group of authors who are outstanding scholars. They are responsible for writing about important individuals in gifted education.

Illuminating Lives makes a unique contribution to the field of gifted education. The book illuminates the lives of 18 psychologists and educators in the history of gifted education, shedding new light on what is known about these individuals. Chapters reveal information discovered in documents and other primary sources. What has previously been known about some of the early contributors to the field of gifted education has been relatively limited in scope and depth prior to the research for this book.

Another unique contribution of this book resides in the scholarly techniques used to collect information about the individuals who represented slightly more than 100 years, spanning the time from the publication of Sir Francis Galton's *Hereditary Genius* to Sidney P. Marland's Report to Congress. The authors conducted biographical and documentary research to highlight contributions of these important figures to the field of gifted education. Although these research techniques are not new, they seldom have been used in gifted education.

A field of study gains prominence from understanding its origins. *Illuminating Lives* fills a gap in gifted education as it "illuminates" what is known about individuals who made early and significant contributions to gifted education.

I commend the inclusion of educators and psychologists from several countries as key figures for this work. The editors have also included international authors as well. It is very important to note contributions in gifted education by individuals around the globe.

Congratulations on the publication of this noteworthy book.

FOREWORD

Tracy L. Cross, Ph.D.

JODY AND LAYTON SMITH
PROFESSOR OF PSYCHOLOGY AND GIFTED EDUCATION
THE COLLEGE OF WILLIAM AND MARY
PRESIDENT, NATIONAL ASSOCIATION FOR GIFTED CHILDREN

When does an academic field of study become worthy of being described as rich, valuable, or important? I would argue, right here, right now for the field of gifted education. Whether we call it Gifted Education, Gifted Studies, or Talent Development, our field has crossed an important threshold of substance— having historical accounts of its successes and failures. Pointing to and tracing the historical contributions of significant thinkers and researchers who have pursued important questions is exactly what this book, edited by Dr. Ann Robinson and Jennifer L. Jolly, does. It raises the dead and brings to life the important, often unknown, work of some of the seminal people in our field. The book reveals numerous pathways that have become partially obscured by the very few who followed the work of these people. Perhaps the single greatest lesson of this substantial book is that it teaches us humility about the fact that, no matter how wise we have become, some of our predecessors cleared even darker paths to enable us to imagine what can happen today.

From Francis Galton to Paul Torrance, from Binet to Dabrowski, Drs. Robinson and Jolly have assembled a fascinating intellectual stroll through the rich works of many of our forefathers and mothers in the field. Highly recognized names such as Lewis Terman, Calvin Taylor, and Leta Hollingworth exist in the book, like they did in real life, alongside some remarkable, but somewhat less well-known pioneers such as Paul Witty, Martin Jenkins, and Miriam Goldberg. Reading this book will help add to

the sophistication that comes with really knowing one's field. While genuinely humbling, it will also elevate the position from which we can imagine our future as a field, not a bad outcome for merely reading one book.

My hat is off to my colleagues for having the expertise to put the book together and the authors who provided excellent scholarship bringing to light our only slightly visible paths for the future.

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Michael M. Piechowski, **Ph.D.**, met K. Dabrowski in 1967, followed by eight years of close collaboration. He is the author of *Mellow Out*, co-editor of *Living with Intensity* (with S. Daniels) and of *Off the Charts: Asynchrony and the Gifted Child* (with C. S. Neville and S. S. Tolan).

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1

BIOGRAPHY, HISTORY, AND PIONEERING IDEAS

Illuminating Lives

Ann Robinson

> The secret of biography resides in finding the link between talent and achievement. A biography seems irrelevant if it doesn't discover the overlap between what the individual did and the life that made this possible. Without discovering that, you have shapeless happenings and gossip.
>
> —(Edel, 1985, para. 41).

Gifted education is assuredly a nascent field. Although the classical Greeks have been credited with divine explanations of genius (Grinder, 1985) and Platonic visions of differential preparation for varying social roles (Tannenbaum, 2000), and examples of eighteenth-century child assessment practices and policies for educational opportunity appear in reviews (Shi & Zha, 2000), the modern, scientific beginnings of interest in the constructs of eminence, giftedness, precocity, and talent initially appear most visibly in concert with the nineteenth-century rise of psychology as a distinct discipline. In particular, the 103 years bookended by the appearance of Sir Francis Galton's *Hereditary Genius* in 1869 and U.S. Commissioner of Education Sidney P. Marland's Report to the United States Congress in 1972 provide a rich array of ideas about talent development and the people who initiated, applied, or popularized those ideas. The time period covered by *Illuminating Lives* is peopled by fascinating figures and offers the reader often surprising analyses of their contributions to gifted education. This text provides the first book-length examination of selected key figures in gifted education and of their conceptual and practical contributions to the field

during a productive and prescient 100-year period. Although the book begins with the appearance of a British publication four years after the end of the American Civil War and concludes with a report to the U.S. Congress that coincides with a period of political and educational activism on behalf of gifted learners in the United States, the key figures in this book represent multiple countries and cultures. The book is overtly Western in its orientation, but in both the key figures and in the authors invited to investigate them, we have included individuals outside the United States. This international perspective is an important part of a broader understanding of gifted education.

Criteria for Selection

Because there are more worthy candidates for inclusion than any single text can accommodate, we used explicit criteria for selecting the individuals included in this book. The decision to begin with Galton and to end with Marland was deliberate because the period encompassed major historical trends in gifted education-early studies of eminence, the mental measurement movement, the rising interest in the scientific study of creativity and the attention to cultural diversity, the establishment of the gifted child movement through deliberate advocacy, and the importance of curriculum and programming to talent development in the schools.

The choice of key figures who appear in *Illuminating Lives* is based on three explicit criteria. First, the individuals were deceased at least seven years when we began the research project so that at the time of publication, each key figure will have been deceased for a minimum of a decade. Our reasoning for the choice of a decade was to let the conceptual dust settle, to provide some analytical distance between the key figure and his or her researcher, and to respect the sensibilities of living family members. Second, the key figures must have made foundational contributions to the field through scholarly activity or professional activism (e.g., through the constructs of intelligence, creativity, motivation, cultural or curriculum theory or advocacy) prior to the appearance of the Marland Report in the early 1970s. For example, proposing theory, conducting empirical research studies, founding advocacy and professional societies, engaging in systematic clinical or educational practices, or any combination of these activities were possible accomplishments that met our second criterion of a

foundational contribution to the field. Finally, to be included in this project, archival research materials related to the key figure must exist and be accessible to the researchers authoring the chapters in *Illuminating Lives*. This final criterion was especially important to this project for several reasons. Gifted education is an excellent match for biographical research, although archival, documentary, and historiographic methods have yet to be applied widely to investigations of the field's own eminent contributors (Robinson, 2009b). One of the purposes underlying the *Illuminating Lives* scholarly project was to encourage biographical and documentary research in archival collections. The rigorous conventions of biographical research are not widely practiced by scholars in gifted education. We hope this text will entice other researchers into this endlessly and obsessively attractive form of scholarship (Robinson, 2009a).

The Importance of Biographical and Documentary Research

Our insistence on the use of documentary sources and the subsequent scholarly analyses of ideas through the vehicle of biographical study is not entirely self-indulgent. Important ideas do not appear fully formed as did the goddess of wisdom Athena, springing forth from the forehead of Zeus. Ideas come from people, and people are shaped by their contexts. We have an increased opportunity to understand our twenty-first-century thinking and theorizing if we examine the contexts, the events, the webs of ideas, and the people whose contributions built a field. To do so, we asked our authors to access original documents. What did they find? Biographer Leon Edel provides a compelling picture of the daunting task our scholars faced. In *Principia Biographia*, he notes,

> Let us image the great table of biography-for biographers need larger tables or desks than most writers. It is piled high with books and papers: certificates of birth and death, genealogies, photos of deeds, letters-letters filled with rationalizations and subterfuges, exaggerations, wishful thinking, deliberate falsehoods, elaborate politenessess-and then, testimonials, photographs, manuscripts, diaries, notebooks, bank checks, newspaper clippings, as if we had poured out the contents of desk drawers or of old boxes in an attic: a great chaotic mass of materials, not to forget volumes of memoirs by

> contemporaries-how they abound in some cases!-and the diaries and notebooks of these contemporaries, and often biographies of the subject written by other hands. All this material, assembled out of the years, will make its way into the mind-and the heart-of the person who has gathered it. (Edel, 1984, p. 42)

Our authors, indeed, found themselves in many cases confronted by archival largesse. Some visited institutional archives (VanTassel-Baska on Galton; da Costa and colleagues on Binet; Jolly on Terman, Marland, and Witty; Robinson and Simonton on Cox Miles; Hébert on Torrance; Rogers on Isaacs). Other researchers were able to access archives digitally (Worrell on Du Bois, Hertberg-Davis on Hollingworth, Davis on Jenkins, Borland on Goldberg, Kronborg on Strang, Robinson and colleagues on Passow). A third group of authors investigated privately held papers and interviewed living family members and colleagues (Henshon on Ward, Cohen and colleagues on Taylor, and Piirto and Kellar-Mathers on Meeker).

In some cases, key figures who could have been included in this volume were ineligible because we could not locate an accessible archive or one does not appear to exist. Two examples are instructive. Our initial list of key figures included Joy P. Guilford. On the strength of his 1950 Presidential Address to the American Psychological Association calling for the scientific study of creativity, Guilford was a candidate to be a foundational contributor to the field of gifted education. We determined his papers had possibly been exported to a society in Japan, but there the trail ran cold. Perhaps the appearance of this volume will bring forth individuals who know of the existence and location of Guilford's personal and unpublished professional papers. If so, this book has contributed to the field beyond the work between its covers. In the second example, the documentary pursuit has a happier conclusion. Virgil Ward also appeared on our initial list. Electronic searches did not uncover an institutional archive, and phone calls to former colleagues and students left us tantalizingly close to Ward's papers but unable to find them. In the end, a fortuitous suggestion from colleague and Ward co-author Bruce Shore led us to Ward's former student, Maurice Fisher, who had stored some materials from his mentor in the basement of his home. Subsequently, Dr. Fisher led us to Professor Ward's daughter, Rebecca. The Ward papers were found in private hands and made accessible to our project! Absent the tenuous chain of events that

led to these privately held papers , *Illuminating Lives* would lack the chapter on a foundational scholar who counted the theory of differential education of the gifted among his many achievements. Biographical research is a thrilling pursuit as well as a scholarly investigation.

The Organization of Illuminating Lives

Readers of this text will no doubt have their own favorite candidates whose lives and contributions do not appear in this volume. We hope that other biographical and analytical works will materialize and that we regain lost archives and missing voices. In the meantime, we are fortunate to have found sufficient primary material to trace the development of several important ideas over time. For conceptual convenience and in keeping with our biographers' preference for a flowing narrative that unfolds over time, the text is organized chronologically in four sections: Foundational Pioneers (Galton, Binet, DuBois); Great Investigations (Terman, Hollingworth, Cox Miles); Cultural Diversity, Creativity, and Crisis (Witty, Jenkins, Torrance, Taylor, Dabrowski); and Curriculum, Advocacy, and Policy (Goldberg, Passow, Ward, Meeker, Strang, Isaacs, Marland). Within the four sections, the chronology is not so strictly observed; we avoided cutting the conceptual and historical flow made by our key figures to fit a procrustean bed of birth and death dates.

The individual chapters are generally organized in two parts. First, the key figure is introduced through a biographical sketch. Next, the authors analyze the major contributions of the person and link these contributions to gifted education. The similarity among the chapters ends there. Again, the variability across authors certainly accounts for some of the differences, but the differences are also a function of the kinds of archival and documentary materials available on the key figures and the ease with which these materials can be searched through catalogues or finding aids. Our authors encountered both *thick* and *thin* documentary sources. In some cases, extensive archives exist for a key figure. For example, the Galton Archive at the University of London contains a vast collection of papers in one area and the preserved experimental devices invented by Galton in another. In addition, Galton letters and documents are also found in the collections of the British Library and in other archival collections of his Victorian contemporaries. The University of Massachusetts at Amherst has digitally

preserved an extensive collection of materials on W. E. B. Du Bois, including searchable textual documents and photographic images. The robust papers of Catharine Cox Miles are embedded in her husband's collection at the Center on the History of Psychology in Akron, Ohio, but other relevant documents are found in family archives at Haverford College in Pennsylvania and within the Terman papers at Stanford University. In these cases, authors were both bedeviled by *thick* archives and blessed by well-organized finding aids. Other authors worked with *thin* archives. For example, the Paul Witty papers located at Northwestern University are limited and largely focused on Witty's contributions to his work in reading rather than to gifted education. In this case, the thin archival evidence was buttressed by interviews with a former student of Witty's, Dr. Walter Barbe, who supplied personal stories and additional documentary materials. What documents were preserved, how they are preserved (digitally scanned or fragile originals), how they were made accessible (catalogued and digitally searchable, catalogued and hand searchable, digitally scanned, but uncatalogued, uncatalogued and thus hand searchable only), and where they are preserved (university or institutional archives, casually accumulated, or privately held) all affect the kind of biographical research that authors could carry out for this project. All biographers and historians face the problems of too much diffuse and unrelated material, too little relevant material, or gaps in the record that invite dangerous inferences. Across the authors in this volume, each of these problems confronted one or more researchers and affected the nature of the chapter that could be written.

Foundational Pioneers: Polymaths and Provocateurs

In terms of archival richness and both lively and contentious analytical scholarship across multiple decades, the individuals appearing in the section of the book focused on foundational pioneers provide an intriguing set of portraits and an enduring set of conceptual concerns. Sir Francis Galton has been identified as the grandfather of gifted education (Stanley, 1976). VanTassel-Baska (this volume) claims him as the father of gifted education but points out he never formally studied gifted children *per se* although he secured data on a variety of measures of child physical and psychological variability. A member of a prominent family that included the Darwins and the Wedgewoods who had prospered in the china pottery trade, Galton

made original contributions to multiple fields-statistics, criminology, geography, and psychology. His Victorian habits of collecting and counting translated into ingenious data collection devices and practices, while his Victorian values of accomplishment and improvement led him to investigate eminence and ultimately to endorse the tenets of eugenics. He is a troublesome figure for the modern scholar of gifted education-a brilliant innovator whose enthusiasms led to dark beliefs and presaged even darker practices. His inclusion in *Illuminating Lives* posed a challenge for his author and will pose challenges for his readers, but his life is also an exemplar of the problems of presentism and revisionist analysis that are integral issues in biographical and historiographic research (Lovett, 2006). Historians caution that our interpretation of events is bounded by chronology and our current worldview. Applying a twenty-first-century lens to a nineteenth-century life can mislead as well as enlighten. Instead we must enter Galton's world and extract the numerous insights, lessons, and cautionary tales that exist there.

While Galton was charging Londoners a few pence to enter their vital statistics into the register in his anthropometric laboratory and proposing the sale of baby books to proud parents in order to collect data on a very young sample, his contemporary, Alfred Binet, was busily observing his daughters and developing what he termed *individual psychology*. While the appearance of Binet in a book devoted to gifted education might be reasonably assumed to rest on his development of an intelligence scale for children, Binet has other claims on our field. English-speaking readers have not had the opportunity to read Binet's original works but have had to rely heavily on those that have been translated. The works in English translation do not represent the full range of his oeuvre. In addition to theoretical and experimental work on children's thinking and personality, Binet investigated the “creative imagination” of writers, investigated the cognitive strategies of mental calculators and expert chess players, and worked with teachers and school administrators to carry out pedagogical investigations in the real world of the schools rather than in the brass and glass laboratories of the late nineteenth century. Binet theorized about and studied several constructs, samples, and practices relevant to gifted education-intelligence, creativity in writers and actors, extreme cases such as mental calculators and chess experts, and pedagogical practices adapted to individual differences. Binet and Galton exchanged letters as did many intellectuals of

the time, but their interests in individual differences diverged. Galton maintained an abiding interest in adult eminence; Binet was passionately devoted to understanding children and improving their opportunities to learn in schools.

Finally, the third foundational figure whose thinking has influenced gifted education is the scholar and activist, W. E. B. Du Bois. Du Bois was born a year before the appearance of Galton's *Hereditary Genius* and lived a full 95 years, dying in 1963. Thus, Du Bois understood the lingering effects of slavery but lived to see the beginnings of and contribute to the American Civil Rights movement. His key contribution to gifted education, published in 1903, was *The Talented Tenth*. Du Bois suggested that improvements for African Americans had their best hope in the cultivation of accomplishments among their most talented individuals. He neither published in gifted or psychology journals dominated by White researchers nor investigated the theories, constructs, or educational practices most associated with the field of gifted education, but his influence is undeniable and foundational, as is aptly explained in the chapter devoted to his life and work.

Across these early figures, we find several enduring concepts in the field that absorbed them. Taken together, pioneers Galton, Binet and Du Bois thought, theorized, researched, or wrote about eminence, genius, creativity, intelligence, and cultural diversity. One hundred years on, these constructs remain twenty-first-century concerns-they are truly foundational.

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2

SIR FRANCIS GALTON

The Victorian Polymath (1822–1911)[1]

Joyce VanTassel-Baska

The life and work of Sir Francis Galton is surely the most important in any history of the field of gifted education. He not only was the first to study giftedness in a serious way but also invented statistical techniques such as correlation and regression in order to use statistics to handle the data sets he constructed. His interest in children in schools and women in hospitals led to his initiating questionnaires to collect data on needs in both settings. Galton's investigations led to improved attention to vision and hearing needs of children and to pregnancy issues related for women. Thus, his work impacted many aspects of what we still do today in education in general as well as in gifted education.

Galton's strong belief in his cousin Charles Darwin's work drove his research in the direction of investigating hereditary influences on giftedness and on using mixed methods he invented to study the phenomenon in different ways. He conducted case study work on eminent personalities across history, presaging the work of Catharine Cox Miles almost a century later (Cox, 1926). He studied the lineage of English men of science and their families, examining the presence of eminent accomplishments across and within generations in his native England (Galton, 1874). He studied synesthesia through collecting data on examples of it; many of the responses came from women (Galton, 1880). He conducted studies of facial features of prototypical people and eminent personalities in the hope of finding physical characteristics that mirrored mental ones (Galton, 1883).

His broad-based and extensive research agenda ultimately required more space and led to the establishment of the Galton Laboratory at the University of London, a lab that was ultimately taken over after Galton's death by Karl Pearson, his colleague and student. While Galton was an amateur scientist, his contributions were enormous to technical fields not yet developed in his lifetime, such as statistical analyses, fingerprinting methods, and large scale testing of subjects for various purposes.

Galton's Archive

Galton's archive is extensive. Located at University College London, it contains 120 boxes of material, ranging from original family albums with photographs to letters, original glass slides of photographic images, and original manuscripts of his work. The archive catalogue contains multiple categories and thousands of data points. Visits to the archive over three years have yielded a depth of understanding of Galton's life and work that exceeds what would have been possible from online exploration although much of the archive is now available digitally. The archival materials most useful for framing this chapter were letters, Galton's memoir, his published papers and books, his study notes, photographs of family and archival photographic slides, and related materials in draft form.

The joy of archival research cannot be overstated. While the process of gaining access to Galton's archive is formal and stringent in respect to credentials, purpose, and the hours it is accessible, the opportunity to request and handle any document or artifact, take digital pictures of the contents, and type notes on a personal laptop was quite freeing. I decided to focus on biographical material, Galton's works in the original, including his memoir, and selected letters written by and to him. The catalogue allowed me to decide what was most important and how to attack the sheer volume of material. Reviewing the notes each night back at the hotel led me to consider what I understood and what needed greater clarification. It also allowed me to realize how exciting certain finds were—the original manuscripts of *English Men of Science* and *Hereditary Genius*, still tied up with twine, the letters from Darwin, and Galton's original sketches from Egypt—particularly meaningful as I had just returned from the trip of a lifetime to the sandy land of the pyramids. No other kind of research sparks

quite the same fire or bears such personal relevance as the biographical study of an eminent individual's personal possessions.

Biographical Data

Born the youngest of seven children to an English Quaker family in 1822, Gal-ton's family background presaged much of his career. His mother and father both came from long lines of eminent families, notable respectively for the banking trade and scientific research. His paternal grandfather, Samuel Galton, was a highly successful businessman with a bent for science and statistics who belonged to the Lunar Society with Joseph Priestly. His maternal grandfather, Erasmus Darwin, was a polymath in his own right, a respected physician, inventor, and poet who proposed a theory of evolution that his other grandson, Charles Darwin, devoted his life to proving. Both of Galton's great-grandfathers had established endowed chairs at Oxford, and many relatives were in the *Dictionary of National Biography* (Galton, 1906). His father, Samuel Tertius Galton, was a successful banker and businessman who loved numbers and working with statistics, even writing a book about currency. He retired at age 44 and died at age 60, leaving a large family to fend for themselves, although not in poverty. His mother, Violetta, was a cousin of Charles Darwin's. Galton spoke of her as a good manager of the household and an artist skilled at drawing perspective. Growing up, Galton was close to his sisters, especially Adele and Emily (Baska, 2009). Thus, Galton had great role models for his development in the form of his own family.

Galton suffered from undiagnosed physical ailments throughout his life. Nervous breakdowns, perceived to be due to overwork, plagued him as did a degree of depression or at least melancholia. Whenever these bouts occurred, generally when he was a young man at Cambridge, Galton usually took a rest and traveled as an antidote. Ye t he had an insatiable curiosity about the world and used that characteristic to shape his research agenda across his lifetime. He also loved to organize and sort, especially if the task involved numbers. His early childhood record attests to the dual importance of working with number concepts and talking. He often recited poetry, for example, to his sister Adele and established number patterns for her enjoyment as well (Keynes, 1993).

Precocity and Giftedness

As a child, both Galton and his sister Adele exhibited precocious behaviors. Adele took her younger brother under her wing from birth, teaching him letters and using the reading method to help him understand language. She taught herself Greek and Latin so that she could teach him and informally trained him in the study of insects at home. The day before his fifth birthday, Francis wrote a letter to his sister stating:

> My dear Adele,
>
> I am four years old and I can read any English book. I can say all the Latin Substantives and Adjectives and active verbs besides 52 lines of Latin poetry. I can cast up any sum in addition and can multiply by 2, 3, 4, 5, 6, 7, 8, 9, 10, 11. I can also say the pence table, I read French a little and I know the clock.
>
> Francis Galton
> Febuary [sic] 15, 1827. (Pearson, 1914, p. 66)

By age six, both Francis and Adele had mastered Homer's *Iliad* and *Odyssey*, even beginning their own compositions in ancient Greek and Latin, a task still considered challenging for many graduate students of the classics (Baska, 2009). While many biographers refer to Galton as being a prime example of a late bloomer from a prodigious family (his most lasting work was not completed until his 80s), Lewis Terman published a study on Galton's precocity in 1917, projecting his childhood IQ around the 200 range (Terman, 1917). Even without quantifying the behaviors, his intelligence and intellectual curiosity were clearly evident from an early age.

Education

His father wanted him to be well-educated and to take advantage of opportunities that he had not. Thus, education was an important consideration in Galton's early life. He attended the local schools around the area of Birmingham. In 1836, he entered King Edward's School, where he

learned much about the classics and religion, but his parents withdrew him because of his failed expectations and encouraged him in the pursuit of a medical career instead. To this end, he studied at Birmingham General Hospital from the age of sixteen. Galton wrote in his memoirs that he relished his time on ward duty, even while he spent time tending to men who had been injured in fights. He cavalierly noted in *Memories*, “It was my part to shave the head, using the blood as lather, which makes a far better preparation for shaving than soap” (1908, p. 42). After his year apprenticing with local doctors at Birmingham General, he attended medical school at King's College for a year, where he again showed a predilection for morbid topics in his studies. He commented rather ghoulishly to his father, “Dissecting increases the appetite wonderfully” (1908, p. 48). Already in his adolescence, he had developed a somewhat macabre and distanced attitude toward patients and the medical profession in general that would follow him in his later career.

He then entered Trinity College at Cambridge University in 1840, studying mathematics and medicine, but did not take well to the rigors of academic life. After a difficult start, he took a year off to recover from mental overexertion. He writes in his memoirs of this period: “It was as if I had asked a steam engine to perform more work than it was constructed for, by tampering with its safety valve, had strained the mechanism. Happily, a human body may repair itself” (Galton, 1908, p. 97). When his father died in 1844, he realized he could live well without an income and made the decision to discontinue his dalliance with medicine. He graduated from Cambridge without distinction, unsure of his future. For a few years he indulged in sports and lived a life of leisure while recovering his health but became bored and decided to engage in extensive travel which he found more to his liking.

The Travels of Galton

Galton had an insatiable appetite for world travel, a taste first developed on an extensive trip to Europe. Ye t his passion for travel was only beginning. He went to Egypt and explored the Nile River to its origin near Khartoum, sketching images of interest along the way and corresponding with his friends about the wonders of the country. He continued on in the continent of Africa, developing both personal and professional interest in the place.

He explored the inland areas of present-day Namibia for two years, leading an expedition of 28 men. He mapped the region geologically and astronomically, made contact with the people of the region, and brought back flora and other artifacts of the area. He later compiled his collections and sketches to write two travel books, one an account of his journey (*Narrative of an Explorer in Tropical South Africa*, 1853), and one for the lay person who would be interested in travelling, an early Frommer's Guide to the art of successful travel (*The Art of Travel*, 1855). For his ground-breaking work in Africa, he received the Gold Medal of the Royal Geographical Society and three years later, in 1856, was made a Fellow of the Royal Society, the highest awards that could be made to Englishmen at the time for scientifi c discoveries (Bulmer, 2003).

Scientific Career

The momentous discoveries of his cousin, Charles Darwin, and the publication of *Origin of the Species* in 1859 led Galton to discover himself as a scientist. After reading the work, Galton later wrote in *Memories of My Life*,

> I felt little difficulty in connecting with the *Origin of Species*, but devoured its contents and assimilated them as fast as they were devoured—a fact to which I am inclined to ascribe to a natural bent of mind that both its illustrious author and myself have inherited from our common grandfather Erasmus Darwin. (Galton, 1908, p. 288)

From the moment he read *Origin*, he began applying the concepts of heredity to human capacity.

After much correspondence with Darwin and study of his cousin's work, Galton became convinced that the development of eminence as a human trait was due almost entirely to heredity. Regardless of academic field or talent, Galton believed that eminence was a heritable characteristic, a belief very much at odds with the more popular sentiment of the time which claimed that all individuals possessed equal ability. Even Darwin believed that all he had learned of value was self-taught and that people should credit no one but themselves for their achievements. However, Darwin had to recant these opinions after reading *Hereditary Genius*, Galton's first

professionally important work. Darwin's letter from 1869 reads, “You have made a convert of an opponent in one sense for I have always maintained that, excepting fools, men did not differ much in intellect, only in zeal and hard work” (Darwin, 1869).

To Galton, genius was innate talent and skill, sometimes shaped by circum-stance, but always passed down from former generations. He set out to study this idea extensively through his lifetime in various ways. In the process, he invented statistical methods, developed a survey method for collecting data, and calibrated differences in human response to various items through use of a scale. His first studies of eminence focused on great men of science, many of whom he knew personally, collecting data on their families and their personal characteristics, their predilections and habits of mind. In *English Men of Science* (1874), he wrote that Darwin was very bad at modern languages and learning by rote but that he had a good memory for concepts and excellent organizational skills for planning and monitoring projects.

Just as in preparation for his later work, *Hereditary Genius*, Galton studied genealogies and obituaries for clues to support his emergent ideas. Both *English Men of Science* and *Hereditary Genius* celebrated his thesis that genius ran in families, mining the data from those he knew personally, such as family members and Royal Society colleagues, and those whose work he admired, such as Plato, Michelangelo, Newton, and the Brontë sisters. He once remarked at a talk on his work in Paris,

> It must be recollected that we have to work not only for ourselves but for future generations of scientific men and that we are doing really good science if we can succeed in the establishing of family records that will afford information to others of a kind inaccessible to ourselves. (Galton, 1869, p. 32)

Galton's work propagated the idea of nature versus nurture, and he spent much of his life trying to help others understand the strong influence of natural traits. He initiated the first studies of twins, attempting to show indisputable aspects of heritability in the same family. He also became interested in census-taking among school children to predict and diagnose problems in physical health such as vision or mental capacity that would affect learning. While he never created an IQ test, his ideas would surely

have influenced Binet, who first developed such an instrument (Wolf, 1973).

A natural outgrowth of these interests was Galton's more infamous association with eugenics. Galton believed that Darwin's idea of *survival of the fittest* should be applied to human society, where he believed that desirable traits should be passed down to future generations to benefit the world as a whole. He wrote,

> The living world does not consist of a repetition of similar elements, but of an endless variety of them that have grown, body and soul, through selective influences into close adaptation to their contemporaries, and to the physical circumstances of the localities they inhabit. The moral and intellectual wealth of a nation largely consists in the multifarious variety of the gifts of the men who compose it, and it would be the very reverse of improvement to make all its members assimilate to a common type. (Galton, 1883, p. 2)

Galton's philosophical focus in eugenics always tended toward the encouragement of talent, and the natural development of such gifts passed on for prosperity. In the introductory chapter to *Hereditary Genius*, he analyzed eugenics from a historical perspective, discussing the tragedy of the monastic movement that appealed to the great intellectuals of the medieval era. According to Galton, the great men of the Middle Ages devoted themselves to Christian celibacy, thus depriving the world of stronger, intellectually powerful, and morally superior men. His protégé Karl Pearson later distilled Galton's idea of eugenics into a metaphor,

> The garden of humanity is very full of weeds. Nurture will never transform them into flowers; the eugenist calls upon the rulers of mankind to see that there shall be space in the garden, freed of weeds, for individuals and races of finer growth to develop with the full bloom possible to their species. (Pearson, 1924, p. 220)

This more reductive view of Galton's theory of eugenics would be used later to argue for white supremacist ideology, but Galton himself was far more focused on the possible accomplishments of the genetically gifted individual, rather than the concept of a *master race*.

Other Accomplishments

While Galton's eminence was guaranteed with his contributions to the psychology of individual differences, he made contributions at world-class levels to other fields as well. He was the first to use pictures to analyze weather patterns, tracking trends in maps of Europe—techniques still used today by meteorologists. He also discovered the unique properties of fingerprints, writing two books that proposed fingerprints as an ideal way to track criminals, a suggestion implemented and institutionalized by Scotland Yard five years after his ground-breaking work on the subject.

He developed the science of biometrics, the application of statistical techniques to the understanding of living forms. He contributed to the founding of inferential statistics, by working through the concept of correlation and regression, which put him on the forefront of a completely new scientific and mathematical process. In 1889, Galton published *Natural Inheritance*, a summary of his work on correlation and regression and the techniques he had worked out. His graduate student and biographer Karl Pearson noted how impressed he was with Galton's work in this area: “It was Galton who first freed me from the prejudice that sound mathematics could only be applied to natural phenomena under the category of causation. Here for the first time there was a possibility … of reaching knowledge as valid as physical knowledge was thought to be, in the field of living forms and above all in the field of human conduct” (Pearson, 1930, p. 87).

Galton studied visual imagery and was fascinated by what his subjects sent him in the way of both images and their personal meaning. Mental associations commented on were frequently very interesting and literary. Galton received letters from women who experienced visual imagery in very vivid associations (Galton, 1864–1892). A letter from a Mrs. Turner (“old lady from Nottingham”) noted,

> Even and odd numbers have very distinct associations. The odd ones seem to me more eccentric individuals—cleverer; the even more reliable and respectable; probably from the early impression which the words odd and even conveyed. I see all historical characters or marked events in present times on the map where they took place. (1864–1892)

She noted that these maps were inside of her head unconsciously at the same time. Mrs. Turrell, a second respondent to Galton's queries for examples, related associations with specific letters (B with a dwarf, S with an overdressed lady with a boiler glass in her hand, I as milestone, Q as serpent). Another respondent noted that she “always saw printed words as having faces.” A male respondent noted that he saw numbers between 1 and 1,000 as situated in a circle with a definite place (1864–1892). Some women sent in full family trees with how each member of their family (parents, aunts, and uncles) reacted to the same number. These comments provide an early glimpse of the development of the study of synesthesia, a condition that documents the perceptual capacities of many individuals in respect to crossover sensory abilities in visual, auditory, and kinesthetic areas (Cytowic & Eagleman, 2009). Viewed by some as psychologically abnormal and by others as a spur to creativity, Galton was the first to see the heritability of synaesthesia and its promise for positive outcomes in human products. We now know that the condition has positively affected many geniuses in the arts, including Duke Ellington and Wassily Kandinsky (Tucker, 1995; Grohmann, 1958).

Galton also created instruments to conduct measurements of physical characteristics such as height and certain dimensions of body parts just as he created statistical tools to analyze data. His research interests drove the nature of his original thinking and approaches to address questions. These instruments are accessible for viewing at the University of London Galton laboratory archive.

Last Years

Galton's later years were spent continuing to do studies in his laboratory, working on his memoirs, and lecturing on eugenics and its importance to the future of mankind. He continued his correspondence with Karl Pearson and others who influenced his thinking at this stage of life. His desire to travel extensively diminished although he did travel abroad with his niece Eva on a few occasions (Bulmer, 2003).

Galton received many awards throughout his long, 89-year life. He even received a knighthood from Queen Victoria in the year of his death. He grew increasingly infirm, first unable to hear and then to walk. In spite of his physical condition, he still loved the outdoors and valued a close

connection to the natural world. He died of acute bronchitis in 1911, leaving the bulk of his estate to an endowed chair in eugenics at the University of London, where he began his anthropogenic laboratory so many years before in 1884. Karl Pearson was its first occupant. Galton's last words were said to be, “One must learn to suffer and not complain” (Brookes, 2004, p. 235).

Beliefs and Values

For his whole life, Galton believed in the propensity of individuals from pres-tigious families to have the capacity to contribute through their abilities to the betterment of society. Because of their natural capacity, he believed that resources should flow to support the most able in a society. He also believed that the *race of man* should seek to improve itself through collecting family data, through birth control, and through other measures. As an apolitical man, his motive was to enhance the life of future generations, an aspiration well within the grasp of England in the nineteenth century. Fanchon (2009) even suggested that for Galton, eugenics was his religion, a way of merging his veneration for Darwin's ideas about evolution into a dynamic progressive direction for mankind. In the last year of his life, Galton wrote a novel, *Kantsaywhere*, on his utopian vision of eugenics. As much as the idea has been reviled since his death, due partly to its appropriation as a justification for crimes against humanity during the Holocaust, his dream for it was altruistic. Like many Victorians, Galton hoped to improve the natural condition of life for future generations. In our current genetic era, this desire is still alive and is being addressed in a number of ways such as through the painstaking delineation of the human genome to prevent disease and demonstrate that individual differences in one's genetic code have large effects on health and future life trajectories.

Galton, the Man

Many biographers have analyzed Galton and the characteristics that drove him to accomplish so much in his lifetime. The mark of an omnibus gifted personality is the extent to which it has impacted multiple fields. Galton did just that as an explorer, meteorologist, biometrist, and scientist, yet today he is still best known as a researcher of heritability and as the father of the eugenics movement. Known as a polymath, Galton influenced many fields

during his lifetime. He also instituted procedures for schools and other agencies that are still in place. For example, his techniques for fingerprinting are still employed to identify criminals; his research techniques are still applied to contemporary studies, as are his ideas about collecting data on large school-age groups or pregnant women to understand their needs.

Galton had great intellectual drive and energy, particularly for a man who could so easily have lived a life of gentlemanly leisure. He accomplished a great deal in the public eye, but also steered the organizations he cared about through several periods of his life. He served as president, secretary, and in other offices for most of the organizations with which he was affiliated, including the British Association, the Royal Society, and the Anthropological Association. He began new projects and research studies as they came to interest him. By most contemporary biographical accounts, Galton was also highly social and an affable personality (Gillham, 2001). He managed an active social life, with the help of his wife who had strong connections and helped him entertain at home on Rutledge Street in Kensington, London, or on picnics in various favorite spots throughout England.

Galton spent much of his life trying to live up to his own illustrious heritage. The sizeable shadows cast by his grandfather and cousin intimidated him and in many ways spurred him to look for new areas of science to define. He once observed, “The world is beginning to awaken to the fact that the life of the individual is in some real sense a prolongation of those of his ancestry. The life histories of our relatives are prophetic of our own futures …” (Galton, 1869, p. 145). Not only was this comment indicative of his work to date, it also signals our own contemporary understanding of population genetics and its application to health care.

One of his biographers, Bulmer (2003), described him as a man whose creativity exceeded his intellect. His capacity for ideas extended beyond his capacity to carry them out to the deepest level necessary for logical conclusions to be drawn from all aspects of the work. Consequently, the world has forgotten nearly all of the spheres to which he contributed because others have made a deeper mark on the intellectual canvas and because modern history has given eugenics a bad name. Ye t no researcher has exceeded Galton in the sheer scope of his imagination to understand individual differences and apply them to his work.

One puzzling issue that remains in his personal life is his relationship with women. He never directly acknowledges his debt to the women in his life, even though his sister gave him his best educational experiences, his mother was his close confidant well into his twenties, and his wife supported his intellectual efforts and helped him flourish in the social climate of Victorian England. Another of Galton's biographers (Forrest, 1974) accused his wife of having little or no imagination, perhaps accounting for her barest of mentions in Galton's memoirs. However, given his evaluations of the contributions of mothers in his works on great men in the arts and sciences, it is inexplicable as to why he gives all the women in his own life such short shrift. Of his mother, he noted only that she had good perspective in drawing, even though she held the family together for 30 years after her husband's death. His sister also suffers from limited commentary and receives no credit for her intellectual contributions to his development. Galton notes in the *Memoirs*, "I owe enormously to her pious, serene, and resolute disposition" (1908, p. 11).

TABLE 2.1 Biographical and Professional Milestones

1822	Born in Birmingham, England, the youngest of six siblings by several years and only the second son in the family. Father Samuel and mother Violetta.
1824–1829	Tutored at home by his sister Adele in classical subjects; learned to read at age 2½ and acquired math facts by age 4.
1830–1837	Attended a series of private schools from age 8 to 16, which he found distasteful and lacking in educational value.
1838	Started medical training at Birmingham Hospital.
1840–1844	Attended Cambridge for three years but left after a nervous breakdown; returned and completed medical training.
1845	Travelled to Egypt and discovered aspects of animal behavior in cattle; sketched highlights of his trip and did watercolors.
1850–1855	Charted the interior of South Africa for which he received a medal from the National Geographic Society and wrote *The Art of Travel* in 1855 as a guide to others wanting to explore new lands.
1853	Married Louisa Butler.
1859	Publication of *The Origin of Species* by Charles Darwin, the book that influenced Galton immeasurably in his work on hereditary influences on genius.
1862	Discovered the anticyclone and methods of mapping patterns of weather.
1865	Delivered a definitive paper on the nature of hereditary genius, the basis of his work for the rest of his life.
1869	Completed and published *Hereditary Genius*.

	Studied animal husbandry to understand inherited traits. Began photographic studies.
1884	Published *Inquiry into Human Faculty*.
1884–1891	Established and ran an anthropometric laboratory for his studies of human biology.
1889	Published *Natural Inheritance*.
1891	Published a paper on the role of fingerprinting as a way to pinpoint individual differences, a technique ultimately adopted by Scotland Yard to identify criminals; Galton also wrote two books on the subject.
1897	Louisa, his wife of 40 years, dies while they are travelling abroad.
1901	Delivered a lecture on eugenics to the Huxley Society; presided over its spreading influence in England and abroad.
1902	Awarded the Darwin Medal.
1906	Emily, his sister, died at age 98.
1908	Published *Memories*, his autobiography.
1910	Wrote a Utopian novel on eugenics titled *Kantsaywhere*.
1911	Died at home of heart failure after a bout with bronchitis; his will established the Galton Chair at the University of London, first held by Karl Pearson.
1912	First International Congress of Eugenics held in London.

Galton was a private person when it came to personal feelings (Brookes, 2004), not unlike his cousin Darwin. His memoirs reveal little of the man, only of what he did at different stages of life. Perhaps this lack of introspection was a characteristic of the Victorian Age in which he lived. Because he never had a child, he once admitted in a candid moment that he lacked the same motivation for succeeding that other men possess because of family obligations and duties. He probably perceived the lack of an heir as a personal failure, given his focus on heritable characteristics. Two things appeared to bother him throughout his life—the inability to have children, one area in which he could not emulate his cousin Darwin, and religion, a struggle that resolved itself through his unique view of his work as religious in nature, with eugenics as the highest act of reverence for the human race. Table 2.1 summarizes key biographical and professional milestones.

At his funeral and quoted in published obituaries, the Reverend Butler of Trinity College, Cambridge, addressed the worthiness of Galton the man:

> He was a man of singular sweetness of temper, courteous, considerate, prompt to sympathize in little things as well as great. He was a stimulating conversationalist … charming travel companion who could

> solve problems well … had a keen intellect, vigilant for something new, beautiful, or wonderful. (Butler, 1911)

Galton and Darwin

Since Galton and Darwin were cousins, sharing the same illustrious grandfather Erasmus Darwin, they sporadically kept in touch with each other on matters of mutual interest. While neither man knew their grandfather, both followed in his footsteps in important ways, perhaps Galton more so than Darwin in respect to the range of his interests—in invention, in science, in medicine, and in poetry. Certainly his mother thought that medicine was a good career for Francis, based on her father's success with it. Pursuit of all of these interests kept Galton quite busy and productive for many of his adult years before settling into a life of science that foreshadowed modern-day psychology.

Galton was fascinated with Darwin's theory of evolution, which shaped his work in profound ways, and Darwin, in his own way, was fascinated with Galton's views on natural inheritance of ability. The two men exchanged many letters on the topic. On Galton's book, *Hereditary Genius*, Darwin remarked, “I do not think in all my life I have read anything more interesting and original—and how well and clearly you put every point. I congratulate you on producing what I am convinced will prove a memorable work” (Darwin, 1869).

Galton was quite influential in seeing that Darwin was interred at Westminster Abbey rather than at Down, his home for most of his adult life. Galton's efforts would have been perceived as family duty to ensure his cousin's accomplishments were recognized for the ages. For Galton, Darwin was not only his model for scientific thought but also a philosophical and religious guide. As he moved more toward an agnostic view and away from traditional religion, Galton became enamored with the religious aspects of evolutionary biology, noting in his conclusion to *Hereditary Genius*, “… all life is single in its essence, but various … and interactive in its manifestations. … Men and all other animals are active workers and sharers in a vastly more extended system of cosmic action than any of us can possibly comprehend” (1869, p. 428).

Galton, the Father of Behavioral Genetics

The studies of individual differences in mental ability were begun by Galton through his study of twins, families, and school contexts. More than any other person in the history of this evolving field that has become behavioral genetics, he anticipated the right questions to ask and followed up on them with data collection and analysis that were unique to his vision. Beginning with his study of *English Men of Science*, Galton meticulously collected data to support his theory of familial inheritance as having a profound impact on societal contributions. He regretted that because of the celibacy demanded by the church in the Middle Ages, gifted men in Europe had not produced the offspring so necessary for the advancement of civilization. He noted, "The subtraction for generation after gen-eration of the brightest minds and gentlest hearts from the world which so grievously needed them …" (Galton, 1869, p. 45). He believed in the perfectibility of mankind and that careful testing provided a tool to make it realizable. He founded eugenics, a branch of science that sought to manipulate genetic understanding of the time on behalf of improving the mental capacity of the English. He foreshadowed the development of mental testing, credited to Binet and Simon, albeit for a different purpose, and numerous studies of twins reared apart to document the role of genes in human development (Bouchard, Lykken, McGue, Segal, & Tellegen, 1990).

Galton, the Father of Gifted Education

Although the field of gifted education as it has evolved in the United States tends to credit Lewis Terman and Leta Hollingworth with the progenitor label, it is difficult to ascribe that ancestral laurel to anyone but Francis Galton. He conceptualized the theories that guide our thinking today—the role of families, the boundaries of heredity, the role of individual differences in performance in all fields, and the special nature of eminence. He also created methodologies and tools by which we conduct research in gifted education from biographical techniques to statistical methods still in use. Galton also crafted the macro research agenda still followed today—twin studies, biographical inquiry into the lives and family background of contemporary eminent people, and large scale studies that allow us to understand the development of talent over time. While revisionists among

us may be quick to dismiss his ideas as racist, sexist, and inaccurate in light of contemporary understanding, it seems fair to judge Galton as a product of his time and his culture and to give him a leading place in the pantheon of individuals who have contributed greatly both to understanding genius and the mark that such genius makes on societies. He not only studied such topics but also chose to demonstrate them by the exemplum of his own life.

Conclusion

In the final analysis, Galton's research was "me-search," a search for himself in respect to eminence, family background, and trait theory. He was heavily influenced by Darwin at several levels but particularly by his evolutionary theory that provided the groundwork for his eugenics movement. Eugenics was his next logical step in a chain of reasoning about improvement of humans. His view of women was heavily influenced by the age in which he worked and lived. While he respected them, he was ill at ease with many women and rarely credited them for their unique accomplishments and abilities. He indisputably contributed more to gifted education research and development of the field than anyone else in history. In sum, he was an example of a highly gifted person living a life of optimal match to his interests and predispositions in many areas and was able to convert those abilities and interests into new fields of study, benefitting society in many ways. His life and work established him as an eminent personage for all time.

Note

1. Part of this chapter is a revision of *Eminent Remains: The Life, Studies, and Archives of Sir Francis Galton* (Baska, 2009). We thank Prufrock Press, Inc. for permission to adapt that material.

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3

ALFRED BINET

A Creative Life in Measurement and Pedagogy (1857–1911)

Maria Pereira Da Costa, Franck Zenasni, Serge Nicolas, and Todd Lubart

Alfred Binet was one of the pioneers of modern psychology (Fancher, 1997). He was particularly known for his contribution to the measurement of children's intelligence (Fancher, 1985), but he also contributed to many discoveries in psychology and to the dissemination of ideas subsequently developed by psychologists during the twentieth century (Nicolas & Levine, 2012; Siegler, 1992). Abroad, Binet is recognized primarily for the development of the metric scale of intelligence, the Binet-Simon, considered the first test of children's intelligence. Unfortunately, due to the paucity of translations of his numerous French publications, Binet's work does not yet have the international recognition it deserves. Although a detailed biography and bibliography by Wolf (1973) was published in English and continues to be the international resource bibliography regarding Binet's life and scientific work, the full measure of his contributions and their relevance to gifted education are not widely known.

Binet's life and career are full of surprises with regard to the diversity of his interests and the subjects to which he contributed. To become more familiar with this innovative psychologist and thinker, we benefit from the work of the Binet-Simon Society, founded by a small group of researchers interested in the history of psychology. Its president, Bernard Andrieu, Professor at the University of Nancy, is also the director of Binet's archives. With the help of Guy Avanzini, Alexandre Klein, and Binet's family,

documents and artifacts connected with Binet's work have been identified and collected. Reprints of books are published, and seminars are held regularly in memory of Alfred Binet. For this chapter, we have relied heavily on their work and on many articles published by historians of French psychology including Serge Nicolas, co-author of this chapter. In this chapter, we first describe Binet's unusual personal journey; then we discuss his contributions that led to a better understanding of several domains of psychology, especially the development of children's intelligence. Applications of his research and ideas through the Metric Scale and his conception of the nature of effective pedagogy are presented. We also discuss a more mysterious side of Alfred Binet, namely his passion for Grand-Guignol Theater, where plays anticipating modern horror movies were staged.

Biography

Alfred Edouard Louis Antoine Binet was born in Nice on July 8, 1857. At that time, Nice was still attached to the Kingdom of Piedmont-Sardinia (a future Italian province) but would become French again in 1860. Alfred was the only child of Edouard Binet, a physician, and of Moina Allard, a painter. On August 14, 1884, Binet married Laura Balbiani (1857–1922), daughter of Edouard Gerard Balbiani (1825–1899), professor of embryology at the College de France, a prestigious institution where prominent scientists of the period conducted research and taught. Alfred and Laura had two daughters: Madeleine (1885–1961) and Alice (1887–1938), who were a source of inspiration and the subjects of observation for their father (Nicolas & Sanitioso, 2011).

Binet's academic background was diverse; he completed an undergraduate law degree in 1878 and practiced as a lawyer for a few years. He did not like the law and simultaneously began scientific training that led him to the Salpêtrière Hospital, where neurologist Jean-Martin Charcot (1825–1893) treated hysteria through experiments in hypnosis. In 1892, Binet published *Les Altérations de la Personnalité* (Binet, 1892a), inspired by Charcot's lessons; the scientific value of the work was recognized by the Academy of Moral and Political Sciences. In *Les Altérations*, Binet defends the idea that there are multiple consciousnesses (Binet, 1890a).

Although Binet's activities and contributions in the field of psychology are noteworthy, Binet's dissertation was actually in the natural sciences. At the same time he worked with Charcot, Binet studied with his father-in-law and on December 24, 1894, defended a thesis as Doctor ès Sciences Naturelles entitled “Contribution to the Study of the Nervous System in Insects Tract” (Binet, 1894b). For many years the scientifi c interests of Binet were doubly oriented; he became a member of the Society of Biology in 1895 and Director of the Laboratory of Experimental Psychology at the Sorbonne in 1895.

Although he was infl uenced by Charcot's instruction, Binet's interest in psychology took a more scientific direction in 1890 after he met Henry Beaunis (1830–1921), the founder of the Laboratory of Physiological Psychology at the Sorbonne. Binet became deputy (assistant) director of the laboratory in 1892 and then director of the laboratory in 1895. In his autobiography, Beaunis gave a very clear description of his meeting with Binet. He described,

> A big man, with robust complexion, intelligent eyes behind “nose-tight” spectacles, who smiles easily, an imposing figure of a researcher. He introduced himself, and the ice was quickly broken between us. I knew and appreciated his work, even if I was in the opposite camp on the questions that preoccupied me at the time related to hypnosis and suggestion. We talked, he asked if he could come and work in the laboratory, a request that I granted immediately, happy to find a valuable collaborator for a laboratory that was just starting and whose establishment had evoked expressed or implied negative reactions that had not yet disappeared. I right away appreciated him for his intelligence, for his lively curiosity and for his personal involvement in all his research. In each experiment, in each scientific domain, he was able to discover something new that had not been studied before, to evoke a new way of thinking, and attempted unexplored avenues. He had a remarkable working capacity, a surprising brain activity. (Beaunis, p. 495, translated by Nicolas & Sanitioso, 2011)

In the same year, 1895, Binet founded the prominent French journal of psychology, *L'Année Psychologique*, still published today under the

direction of Serge Nicolas and Ludovic Ferrand (Nicolas, Segui, & Ferrand 2000).

The beginning of Binet's career in psychology is representative of the evolution of French psychology in the late nineteenth century. At that time, French psychology was predominantly oriented towards psychopathology. At the end of the nineteenth century, psychology distinguished itself from medicine, and the study of pathological cases became a means to better understand normal psychological functioning (Huteau & Lautrey, 1999). In this context, individual psychology developed, and, in particular, the need to distinguish between degrees of intelligence was recognized. Binet followed these theoretical developments. He discovered "psychopathology" with Ribot and continued with Charcot's lessons, but the birth of his two daughters and his interest in pedagogy were defining events in his interest in understanding the intelligence of children. Binet began by studying psychological activities such as memory, which was then a major focus of scientific psychology. One of Binet's approaches was to examine the behaviors and performances of exceptional and extraordinary individuals, particularly mental calculators and expert chess players who demonstrated superior memory for particular tasks (Nicolas & Sanitioso, 2012).

From the Study of Exceptional Individuals to the Systematic Measurement of Mental Abilities

Beginning in 1880, Binet published scientific works related to a variety of topics such as hypnotism, reasoning, sensations, visual hallucinations, and somnambulism. In the nineties, Binet was interested in atypical people in terms of cognition. With his colleague Beaunis, he was initially interested in individuals with *colored audition*, defined as the perception of auditory stimuli, such as words associated with the experience of color perception. Beaunis and Binet (1892) reported the cases of two men. The first one, Mr. X, saw color when he read or heard or simply thought about a letter. For example, the researchers noted that Mr. X used to *feel* the red color for "a," grey for "e," black for "i" and so on. These associations between a letter and a color are quite similar to those observed in gifted mathematicians who, in some cases, see numbers in term of colors.

During the period Binet worked on colored audition, he also focused on ex-ceptional mental calculators and the specific case of Inaudi (Binet &

Henneguy, 1892). Inaudi was a well-known mental calculator who had already been examined by Broca, Charcot, and the Academy of Sciences. Inaudi began to calculate at age 6. In contrast, he learned to read and write 14 years later. According to Binet, from early childhood Inaudi was able to mentally calculate solutions to word problems given to him orally by his brother.

Binet examined the adult Inaudi using several tests. Results indicated that Inaudi was able to mentally calculate a subtraction problem with 2 numbers of 21 figures, the addition of 5 numbers with 6 figures, and the square of a 4-figure number. Inaudi proceeded in the following way: At each instruction, he repeated the problem and then began by murmuring numbers. Apparently, he could hold a conversation during his mental calculation, suggesting that the cognitive process of mental calculation was quite independent from his verbal activity. Binet interpreted Inaudi's ability as an exceptional memory for numbers, based on the theory of partial memory which was well established in the late nineteenth century. It is interesting to note from Binet's description that Inaudi's personality resembled current descriptions of prodigies with Asperger's Syndrome (Binet, 1894c).

Binet noted that the complexity and rapidity of the cognitive operations appeared as the two main parameters of exceptional performance. One indicator of giftedness is the instantaneous response to complex instructions. Inaudi was able to add 36 and 2435 as fast as adding 1 and 2 (Binet & Henneguy, 1892). To evaluate Inaudi's performance, Binet measured numerical memory span; Inaudi was able to repeat up to 24 numbers whereas the average is 7 for a typical individual. Inaudi's exceptional memory relates to good encoding ability that was so efficient he could repeat the 24 numbers in reverse order without hesitation or error. Moreover, he was able to maintain in memory the list of numbers for an extended time. At the end of the day, Inaudi could repeat a large quantity of the numbers that he used earlier, often as many as 400, as long as each individual list of numbers did not exceed approximately 24 (Binet, 1894c).

The most important characteristics underlying Inaudi's abilities, however, are not the quantitative performances but the qualitative differences in the strategy used. In the *Revue des Deux Mondes* (Review of the Two Worlds), Binet (1892b) noted that even though Inaudi had learned a classical method of calculation, he used a personal methodology. In general, he used

multiplication for other operations and accomplished partial operations by "trial and error." Broca (1880) compared this operation to the retrieval of words in a dictionary. In other words, Inaudi seemed to access information in long term memory. Moreover, compared to other mental calculators who typically used their visual memory to memorize numbers (i.e., they created a mental visual representation of written numbers), Inaudi encoded and memorized numbers only on the basis of auditive memory and movements of the larynx when he repeated the numbers more or less silently. This multimodality appears to have favored his exceptional memory performance. For Binet, this was not a simple case of hypermnesia or the enhancement of memory through hypnosis, a common belief in the nineteenth century. Binet observed that Inaudi demonstrated other high abilities. They were not as exceptional but were quite superior to average performance. Inaudi's other notable capabilities included perception as measured by reaction time and attentional focus—abilities which were also helpful for the retention of numbers (Binet, 1894c).

Binet also attempted to explain the abilities of other exceptional calculators like Gauss, Ampere, Mondeux, and Mangiamele by comparing them across several factors. He observed similarities in their lives such as childhood poverty, illiteracy, impulsivity, obsession, and precocity in their use or passion for calculating. Some of the exceptional calculators used their potential more broadly in domains such as Gauss in statistics or Ampere in science. Finally, Binet also examined Damiandi, another mental calculator who, in contrast to Inaudi, seemed to use a *visual memory* of numbers (Binet, 1894c).

Binet also extended his observation on the exceptionality of the talented through the study of individuals presenting extraordinary memory in other areas. Specifically, he examined the performance of chess players who played without seeing the chess board (Binet, 1893b). He conducted interviews with well-known chess experts and noted the strong similarities between chess play and mathematics, in particular calculation. He noted differences, too. The abilities of calculators were more precocious, appearing around age 4, while the giftedness of chess players appeared around age 11. In chess, exceptional memory is observable when individuals play several chess games simultaneously without actually seeing the chess boards. Binet noted that only a few players were able to maintain in memory from 6 to 10 games simultaneously. His observations

of expert chess players led Binet to pose the question of to what degree intelligence depends on memory (Binet, 1893b, 1894c).

One of Binet's important conclusions concerning the memory abilities of both exceptional calculators and expert chess players was the importance of training and experience. Despite his suggestion that being an excellent chess player is innate ("One becomes a good player but one is born an excellent player," in Binet, 1893a, p. 835), he observed that training the memory daily encouraged the maintenance and/or the development of recall performance (Binet, 1893b). Thus, if a calculator stopped practicing for several days, decreased performance is expected. This analysis led Binet to hypothesize that some cognitive abilities can be trained and that some intellectual difficulties were skill-related.

From Adults to Children

After studying the exceptional abilities and memory of adults, Binet and his colleague Henri (Binet, 1894a; Binet & Henri, 1895a, 1895b) began in 1894 to focus on the memory ability of children, principally the encoding (*prehension*) and the memorization (*conservation*) functions. For encoding he used a method that is still employed today to test short term memory. Based on Jacobs' experiments in England (1887) in which children had to learn a list of numbers and recall the list few seconds later, Binet (1894a) examined the progression of the mean recall of numbers according to children's ages (Table 3.1).

This normative approach allowed him to observe children who were precocious in terms of memory. He noted, "I observed sometimes children who showed a curious memory; they repeated eight or nine numbers like adults, although they were only ten to twelve years old"(Binet, 1894a, p. 443–444). After interviewing the teacher of these children, Binet concluded that no special coaching was provided and suggested that the educational program did not encourage the teacher to develop memory for numbers. Binet (1894a) then proposed that these tests of memory are an indication of the global level of intelligence of the pupils; the measure of digit span became part of the future intelligence scale developed by Binet and Simon.

In 1900, Binet focused on exceptionally intelligent children, calling them *elite*. One of Binet's preoccupations during this period was to test the hypothesis of a link between head measurements and the level of children's

intelligence. Thus, in a series of studies (Binet, 1901a, 1901b, 1901c, 1901d), Binet analyzed this relationship with normal children, then with *elite* children, and subsequently compared them to less intelligent children. In this way, he helped create the experimental strategy of contrasted groups of subjects. He essentially relied on teacher judgment to form these groups initially as the children for his investigations were identified by their teachers. In one study, he examined 10 *elite* and 16 backward children and compared their head sizes with the normative scores of 50 children. Binet found what he considered to be significant results: The extremely intelligent children presented, on average, three to five millimeters greater diameter and one centimeter greater head periphery; however, *backward* children showed even greater head measurements than elite children. Binet also reviewed the cephalometric studies by Matiegka (1902), who concluded that head circumference was greater for the more gifted children. With such inconclusive results, these anthropometric data were not considered by Binet (1910) as measures of intelligence. In contrast, he proposed to focus on the *superior function* of thinking and to create tasks that allowed these processes to be evaluated in a standardized way.

TABLE 3.1 Mean Recall of Numbers Across Age Groups

Age of children	8	10	12	14	16	18
Mean numeric recall	6.6	6.8	7.4	7.3	8.0	8.6

The Measurement of Intelligence

As noted previously, Binet focused more specifically on child psychology after the birth of his two daughters, Madeleine in 1885 and Alice in 1887. His daughters would be later known under the names of “Marguerite” and “Armande,” when they became subjects for their father in *The Experimental Study of Intelligence* (Binet, 1903). During Binet's investigations in the 1890s and 1900s, basic research in psychology was not distinct from applied psychology as it is today, and Binet adopted a mixed perspective.

Two of Binet's important contributions to the study of intelligence, scholastic difficulties, and high abilities were his proposals of a scientific, experimental psychology and using psychometric tools in schools in order to encourage the control and the development of pupils' potentials. In 1898,

he illustrated the importance of experimental psychology for classical elementary studies because such studies permitted systematic and rigorous examinations of intelligence (Binet, 1898). Binet suggested that differential pedagogy should be proposed according to the type or the intellectual resources of the children. He said, “We do not all have intelligence based on the same schemata. Several different kinds of intelligence exist, and the kind that fits one person does not fit another. This is a common sense truth” (Binet, 1898, p. 462). Thus, experimental psychology, and more specifically what he called “individual psychology” (Binet & Henri, 1896) should help to identify the types of abilities and the ways to develop them. Based on his previous research, Binet (1898) proposed three kinds of abilities or *spirits*—literary spirit, scientific spirit, and artistic spirit. In Binet's conceptualization, the literary spirit was related to verbal abilities, the scientific spirit was related to the ability to analyze and reason, and the artistic spirit, which is clearly less stimulated in traditional schools, was related to the sensation and the feeling of beauty. One task Binet (1898) proposed to determine the type of spirit or ability characteristic of an individual was the standardized task of object description. To be valid, the object description task must be repeated with several items, in other words with different objects.

One of Binet's examples, the description of a cigarette given by two types of students, is summarized in Table 3.2. The contrast between the two *spirits* is very evident.

Binet (1898) continued his analysis, making proposals concerning the pedagogy that should be offered to children based on these different kinds of intelligences or *spirits*. In fact, he believed that (a) all the abilities must be developed in a global way and (b) if an ability is *naturally* high, it should be developed to its highest potential. The interest of experimental, individual-oriented psychologists in the educational system was demonstrated by Binet's membership in 1899 in the Société Libre Pour L'étude Psychologique de L'enfant (The Free Society for the Psychological Study of the Child), an association founded by Ferdinand Buisson, holder of the Chair of Science of Education at the Sorbonne. In 1901, Binet published a paper which advocated the potential role of experimental psychology and psychometrics for pedagogy in their journal. A year later, Binet became president of the Free Society, the majority of whose members were teachers, students, and staff of the national education system. The members

particularly focused on four themes: the physical development of the child, psychological development, educational methods, and the measurement of intelligence. With the arrival of Binet, study methods were based on the use of experimental methodology and investigative techniques such as questionnaires. In 1903, Binet chaired a commission dedicated to the "study of solutions that can be proposed for abnormal and unstable children" (Vial & Hugon, 1998). At that time, the French government had adopted a policy of mandatory education and sought solutions for children who could not find their place in the conventional system. Binet wanted first to identify these children and said,

TABLE 3.2 Description of a Cigarette by Two Types of Individuals

Description by a pupil observer (16 years old)	Description by a literary pupil (21 years old)
Long, thin, cylindrical object wrapped in a white paper, tobacco comes out on each side; a few grains of tobacco have fallen onto the table.	It's a cigarette. It is thin, long, plump, slightly pleated. The folds give it a casually elegant character. Is it by itself? Is it by the memories it evokes that it has something naughty about it? This cigarette, there, on the table, alone, makes me think about a bad schoolboy, who smokes a cigarette in a corner, at the back of the court…

> Before education, we must be able to recognize, distinguish abnormal children among who are confused in schools. How, by what processes, can one recognize them? The processes that could be used are multiple. There is a medical procedure, there is also the psychological process, there is finally the educational process. This is needed to evaluate the instruction level of pupils in comparison to normal pupils." (Binet, 1905a, p. 653)

In the following years, Binet continued to explain how psychology was a useful science for the development of the potential of each child. In a short paper for the *Revue Générale des Sciences Pures et Appliquées* (General Review of Pure and Applied Sciences), Binet (1905b) again argued that schools needed to take into account the typology of abilities of their students in order to adapt education to the personality of each child.

Through the optic of individual differences, Binet developed the Laboratory of Experimental Pedagogy in a primary school, La Grange aux Belles, located in a working-class district of Paris. The school was managed

by Victor Vaney, also member of the Free Society for the Psychological Study of the Child. Vaney had already developed *knowledge scales* which defined the level of achievement each child should have reached at the end of a grade. At the same time, Binet was working on his own *intelligence scale*. Both had the same philosophy—a child should not be defined as a good, bad, or medium-level pupil. Instead, the tools must compare the child to the average performance of children with the same socioeconomic status and age. According to Binet and Vaney, the question should be whether the child was on schedule, late, or advanced in comparison to his or her peers. Influenced by Vaney, Binet applied to intelligence what Vaney had done for academic learning. In fact, the Binet-Simon scale had been developed and adapted taking into account Vaney's work and the pedagogical specificity endorsed by the Free Society for the Psychological Study of Children.

In this context, Binet also tried to develop an individual experimental psychology that applied to education. He called this approach *scientific pedagogy* and explained this science and the research in a paper published in 1905. He suggested that the results in France and other countries like the United States and Germany were helpful for proposing a methodology to examine the development of intellectual abilities of children. Internationally, Binet's most influential work was the construction of the intelligence scale associated with its main pedagogical mission: to create guidelines for admission of abnormal children to specific classes in school (Binet & Simon, 1907).

The Binet-Simon Metric Scale of Intelligence

In October 1904, the Ministry of Education appointed the Commission Bourgeois on the education of retarded children. Binet was invited to be a member of this commission, which was designed to identify children unable to succeed in a normal school, and for whom the Ministry had plans to create special classes (Vial & Hugon, 1998). This demand for social justice and responsible decisions with regard to vulnerable children was seen as an outcome of his previous research and results and strongly motivated Binet.

In contrast to other scientists of the twentieth century, the construction of a theory about intelligence was not his main objective. He focused more on the identification and the measurement of behaviors that express intelligence. This way of thinking and his perception of psychology led

Binet to be very interested in all that could be learned from studying individual differences. As already stated, Binet's first interest was normal adults and exceptional minds such as Inaudi. Until then, intelligence-related measurements were mainly based on sensory perception. In contrast, Binet described intelligence as a dynamic process that developed in three stages. The first stage concerns the comprehension of the situation, the problem, or the question. The second stage concerns adaptation, creativity in order to find a solution or an answer, or to solve a problem. The third and last stage concerns regulation mechanisms and verification processes (Binet, 1909).

This very modern point of view did not match the first tools constructed for the measurement of intelligence. In 1896, Binet and Henri published a paper in which they wrote that pretending to measure intelligence while measuring simple processes instead allowed precise measurements but did not offer a greater understanding of the nature of intelligence. They considered that superior cognitive processes, even if methodological issues were more complex, were better measures of individual differences and abilities. After a critical review of contemporary measurements of intelligence, Binet and Henri described how a useful intelligence test should be constructed. It should be short (no more than one-and-a-half hours for administration) with a variety of exercises to keep the child interested and easy to administer without materials available only in a laboratory or in a specially equipped room. Binet and Henri also listed 10 processes that should be investigated: memory, mental imagery, imagination, attention, understanding, suggestibility, aesthetic feelings, moral sentiments, muscle strength, and motor and visual skills. In the 1896 paper, Binet and Henri presented the foundations of the Metric Scale published in 1905 (Huteau & Lautrey, 1999).

The Binet-Simon Metric Scale (Binet & Simon, 1905) is considered the fi rst intelligence test aligned with the scientific criteria still used for such assessments today. In addition to the test itself, Binet outlined the importance of the psychologist's attitude when administering the metric scale, which should be positive and neutral. Binet defined the conditions for a standardized test administration to allow his comparisons between children and conditions and for the identification of failure due to a child's attention-related problems or to anxiety. This clinical sensitivity to intelligence test administration provided a new approach in the measurement of intelligence. The Metric Scale subtests were based on the

observation of children's development in real social environments such as the home or school rather than on observations in artificial laboratory settings.

The Metric Scale was the outcome of research conducted by Binet in various domains and fields: his own family, his work with Simon in a psychiatric hospital, his collaboration with teachers and school directors like Vaney, and his previous research on adult cognitive functions such as memory. An important starting point was Binet's daughters' births, Madeleine and Alice. As in Jean Piaget's family many years later, everyday life provided a laboratory at home. In 1890, Binet published three papers about children's perception of lengths and numbers based on the observations of his daughters (Binet, 1890b, 1890c, 1890d), but the main work based on his family is *The Experimental Study of Intelligence* (Binet, 1903) with his children renamed “Marguerite” and “Armande.”

The first version of the Metric Scale was published on 1905 and included 30 short subtests based on the age when children should be successful on each subtest. Differentiation of normal children was not Binet and Simon's objective. As the Ministry of Education had requested, they planned to identify only children who were unable to profit from normal schooling. Binet collaborated with Théodore Simon, who was studying *abnormal* children at the Perray-Vaucluse Psychiatric Hospital.

Binet and Simon scored performance in terms of *mental level*, which was trans-formed later into mental age. Mental age is based on a child's performance, compared to the average performance of children at a given age. A child aged eight who failed on items usually answered correctly by children aged eight or seven but solved problems usually answered correctly by children aged six would be identified as having a *mental level* of a six-year-old child. Binet and Simon focused on the idea that developmental speed is the best criteria for the measurement of children's intelligence.

The second version of the Metric Scale was published in 1908 with many items removed or modified (less than 30% of the original version items remained). The main innovation of the revised version was to discriminate among the performances of normal children. This version includes clearer instructions, examples of acceptable and incorrect answers, and information related to the characteristics of the sample used to establish norms, with children predominantly from families with low socioeconomic status.

Table 3.3 provides items and reference ages Binet and Simon considered good measures of intelligence.

TABLE 3.3 Measures of Intelligence by Age

3 years	Show nose, eyes, mouth; repeat 2 numbers; repeat a 6-syllable sentence; know his/her last name
4 years	Indicate his/her gender; name a key, a knife, a coin; repeat 3 numbers; compare 2 lines
5 years	Compare 2 boxes with different weights; copy a square; repeat a 10-syllable sentence; count 4 simple coins; solve a 2 piece puzzle
6 years	Repeat a 16-syllable sentence; compare the aesthetics of 2 pictures; define simple objects; know his/her age; distinguish between morning and evening; be able to do 3 different actions at the same time.
7 years	Indicate missing parts in a figure; be able to count with his/her 10 fingers; copy a triangle and a rhombus; repeat 5 numbers; describe a picture; count 13 coins; name 4 different coins
8 years	Read a news story and remember 2 ideas; count 9 coins (3 singles, 3 doubles); name 4 colors; count backward from 20 to 0; compare 2 objects by memory; write a dictation
9 years	Give the date (day, month, year); enumerate the days of the week; give definitions; retain 6 memories after reading a news story; make 4 coins of 20; order 5 weights
10 years	Enumerate the months; identify 9 coins; place 3 imposed words in two sentences; answer 3 questions of intelligence; answer 5 questions of intelligence;
11 years	Criticize sentences containing nonsense; place 3 imposed words in one sentence; find more than 60 words in 3 minutes; give abstract definitions; put words in order
12 years	Repeat 7 digits; find 3 rhymes; repeat a sentence of 26-syllables; interpret prints
13 years	Cutting; triangle cut

A third version was published in 1911; the authors (Binet & Simon, 1911) kept only five items for each age and adapted the Metric Scale for older children, with norms extended to children from middle and high socioeconomic backgrounds.

The Metric Scale of Intelligence was intended to be used by teachers in schools. In 1911, Binet published an article designed to help teachers use the Metric Scale and personally trained himself and the first users. Binet died sud-denly at the age of 54 in 1911. His early death did not allow him to learn of Stern's IQ score or the uses that Goddard made of his work among the immigrants to the United States (Goddard, 1908, 1910; Gould, 1996).

Binet's Other Fascinations

Like many people, Alfred Binet had hobbies related to some of his scientific interests but expressed in different ways. Binet loved the Grand-Guignol Theater, perhaps fueled by his interest in the creativity of actors and playwrights.

The Grand-Guignol Theater, founded in Paris in 1897, presented gory dramas and horror shows to a public expecting very dramatic stories with shocking scenes and murders. The Grand-Guignol was the precursor to the horror movies that ultimately caused its closure in 1963. Parisian society loved to go to this very fashionable theater at the end of the nineteenth century. Today, the French retain the phrase, "This is Grand-Guignol," to describe exaggerated and ridiculous dramatic behaviors.

André de la Tour, Comte de Lorde (1869–1942), is one of the most famous dramatic authors for the Grand-Guignol. An archivist at the French National Library, he wrote about 150 dramatic theater pieces for the Grand-Guignol signed with the name of André de Lorde. André de Lorde and Alfred Binet both had fathers who were physicians, which was an important similarity and may have influenced their interest in Grand-Guignol.

From his youth, Binet was fascinated by the theater and by actors. He was particularly interested in the mental states of actors. He wondered how an actor could become someone else during his or her performance and what happened in the actor's mind. In 1897, Binet published a paper about this issue in *L'Année Psychologique*; he concluded that the actors shared similarities with some mentally ill people. From Binet's perspectives, actors alternate phases of being *possessed* or adopting the personality of another, but in contrast to those with mental illness become themselves again off the stage.

Binet also tried to understand and define the creative insight of dramatic authors. He was interested in how their ideas originated and how authors developed and transformed an idea in a story expressed in a book or a drama. His method involved interviewing famous authors and asking them to complete questionnaires. Binet's approach focused on three aspects. First, Binet described the physical characteristics of these creative individuals: the diameter of the head, weight, motor strength, health, etc. Second, he focused on biographical aspects: characteristics of parents, schooling, age of first dramatic work, family supports, and date of first theatrical success.

Third, Binet posed questions focused on work processes and conditions. In his investigation, based on Titchener's questionnaire (Binet, 1901e), Binet asked questions about the working environment of the author (“Do you prefer to write with or without any sound around you?”), sociological parameters (“Do you prefer to work alone or with another au-thor?”), and physiological information (“At what time of the day do you prefer to write?”). Binet also exhibited a great deal of interest in qualitative research processes, describing the methods used by the authors (“While you are writing a scene, do you hear the character, or do you see him/her as if he/her was in front of your eyes?”). Unfortunately, as noted in the *Etudes de Psychologie Dramatique*, collected by Agnès Pierron in 1998, Binet did not succeed in understanding creative processes in a scientific way through his investigations of authors and actors.

Even if this part of Binet's research did not succeed scientifically, his meeting with André de Lorde, a prolific dramatic author for the Grand-Guignol, was an important step in his life. André de Lorde needed scientific expertise for his dramas which focused on mental illness, and Binet loved Grand-Guignol Theater. Their collaboration started in 1905, and according to Garcin-Marrou (2011), they wrote 13 dramas together; some of them remain unpublished. Only three of them were staged before Binet's death, and most are published in Pierron (1995). During the Grand-Guignol theatre period, medical issues were very fashionable; medicine, including psychiatry, was advancing. The plays provided a source of information and protection for the public. In all the dramas written by Binet and De Lorde, the central idea is that alienists, as psychiatrics were then called, were not competent. The physical expression of mental illness and the realistic representations of murders or surgical acts were emphasized in their scripts and staged in order to be congruent with the Grand-Guignol norms.

Their first theater drama staged was entitled *L'obsession ou Les Deux Forces* (The Obsession or the Two Strengths). The main character, Jean Desmarest, goes to see a very famous alienist because he wants to know what to do about his brother-in-law who is obsessed by the idea of murder. The alienist answers that the only possibility is to detain the man so the family will be protected. Jean Desmarest becomes very frightened after the alienist's conclusion, has a mental crisis, and murders his own son. The second part of the drama reveals the truth to the audience. Jean Desmarest lied to the psychiatrist and had come for his own problems. The authors

emphasize that the alienist was unable to detect his patient's personality disorders during the session. Thus, the incompetency of alienists was highlighted as was the fact that some mental problems are invisible and can appear abruptly and dangerously.

In 1908, André de Lorde alone wrote a drama titled *Une leçon à la Salpétrière* (A Course at the Salpetrière). Obviously, this text was inspired and studied by Binet, but he did not co-author it; it is the only piece dedicated to Binet by De Lorde. The subject is inspired from a part of Binet's life when he joined Jean-Martin Charcot at the Salpêtrière Hospital in Paris, conducting research on hysteria and hypnosis. Charcot was still very famous at this time; many eminent psychiatrists, and neurologists, including Sigmund Freud, had been taught by Charcot. In the drama, the doctor is named "Marbois," but the audience will recognize Charcot. The drama is based on the extreme behavior of the actors who imitate madness to scare the spectators.

The final play co-authored by Binet and performed during his lifetime was *L'horrible Experience* (The Horrible Experiment). Again, in this drama, the central character is a physician. In this case, the physician tries to resurrect his daughter who died in a car accident, but during the experiment, the corpse resurrects only long enough to strangle the doctor. All of the plays share the same topic: physicians, particularly alienists, are incompetent and sometimes can be more dangerous than the mentally ill individuals they are supposed to treat.

Binet faced the hostility of alienists and seemed to find vengeance using the theater to expose them. When Binet and Simon published their Metric Scale in 1905, it was partially in order to remove psychiatrists from the role of those identifying abnormal children in schools. Binet wanted to expose the incompetence of the alienists at school, showing that psychiatrists had no reliable method for identifying abnormal pupils. When Binet published his Metric Scale in 1905, with the pretext of a request from the Commission Bourgeois, he wished to demonstrate that psychology can be guided by a scientific method.

After Binet…

In October 1911, Binet died of cerebral attack and was buried in the Cemetery of Montparnasse in Paris. Following Binet's death, the Sorbonne's

Physiological Psychology Laboratory was then directed by Henri Piéron. Although Piéron had studied psychology with Binet, he did not follow in Binet's footsteps. Pieron did not accept the idea that intelligence can be measured with a global score. Working mainly on vocational issues, Piéron preferred measures of specific abilities, considered as quite independent one from each other. He was not interested in pedagogical issues and abandoned the Laboratory of La Grange aux Belles. Today, one of the most important French departments of psychology is named the Henri Piéron Center due to Piéron's involvement at the Sorbonne, where he established the first bachelor's degree in psychology in France. Despite his great contributions to psychology and to pedagogy, not even an amphitheater in the Center is named after Alfred Binet.

After Binet's death, Theodore Simon decided to render the 1911 version of the Binet-Simon Scale definitive, so that no further scientific development of the tool could be possible. Unfortunately, this strict respect of his mentor's work by Simon led the Metric Scale to be sidelined in France. In 1926, a psychologist named Bonnis created developmental profiles of children with a low level of intelligence using the Binet-Simon Metric Scale. In 1949, René Zazzo established new norms based on a sample of 550 pupils aged 3 to 12, almost 40 years after Binet and Simon's norms. As a result of his work, Zazzo observed that the metric scale was no longer useful for the discrimination of children more than 10 years old, referring to a phenomenon that was eventually termed the *Flynn effect* 25 years later. In 1966, Zazzo published the New Metric Scale of Intelligence (NEMI), considered in France as the continuation of Binet's work. Abroad, the first adaptation of the 1908 Metric Scale version was constructed by Goddard in 1909, but the most well-known adaptation was the Stanford-Binet published in 1916 and developed for children and adults as well (Cognet, 2011). Binet's vision of the measurement of intelligence was not only quantitative; he also emphasized the importance of taking into account psychological assessment through the individuality of each child. This very modern idea is still important in most psychologists' practices.

Alfred Binet's memory is still alive in French psychology, even if some twentieth-century French psychologists have largely rejected the use of cognitive tests and criticized Binet for designing a tool intended to identify children with mental retardation.

Ignorance of the purpose and design of the work of this great scholar led to its misinterpretation. Fortunately, the patient and painstaking work of the Binet-Simon Society, the Binet Archives, and important publications describing his work have helped to restore his image and his very positive contributions to experimental psychology and pedagogy and to the psychology of individual differences, a foundational concept underlying gifted education.

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4

WILLIAM EDWARD BURGHARDT DU BOIS AND THE TALENTED TENTH (1868–1963)

Frank C. Worrell

For those who are familiar with both early twentieth century African American history and gifted education, it should come as no surprise that W. E. B. Du Bois is included in a book devoted to historical luminaries whose contributions have had implications for the education of the gifted and talented. Indeed, "in a 2000 poll of African-American political scientists asked to select and rank the greatest African American leaders of all time, W. E. B. Du Bois ranked No. 2 behind only Martin Luther King Jr." (Smith, 2003, p. 121). Described by many titles during and after his lifetime, including author, editor, essayist, historian, journalist, leader, lecturer, scholar, sociologist, statesman, teacher, and writer (Altman, 1997; Gates, 2007a; Smith, 2003), Du Bois was clearly an exceptional individual. Although his inclusion in this volume is based, in large part, on his conception of the "Talented Tenth" (Du Bois, 1902/2002, 1903b/2003), Du Bois' educational trajectory speaks volumes about many of the variables associated with gifted and talented education today.

In addition to his prolific writings, Du Bois' contr ibutions are well-documented by scholars, and there are two electronic archives devoted to Du Bois. One of these is at the University of Massachusetts, Amherst (http://www.library.umass.edu/spcoll/dubois/?page_id=861); the other can be found at http://www.webdubois.org. On the home page of the archive at the University of Massachusetts, there are several live links under two headings (Digital Projects and About Du Bois). The former contains links

to Du Bois' writings, as well as to exhibits and the Niagara Movement, a group that Du Bois founded in 1905 “to chart a new and more radical course toward social and racial justice” (Niagara Movement, n.d., “The Niagara Movement emerged,” para. 1), and the latter contains links to a biography and chronologies of Du Bois as well as to microfilm and print editions of Du Bois' papers. The webdubois.org archive is maintained by Robert W. Williams, a political science professor and Du Bois scholar; the archive contains links to works by Du Bois, many with annotations by Professor Williams. These two archives contain many documents by Du Bois and were among the primary sources consulted for this chapter.

In the following pages, I provide an overview of Du Bois' educational journey, touching on his family life, the social context in which he was raised, and his educational accomplishments. Then, I discuss his notion of the Talented Tenth. My goal is to highlight how Du Bois' personal educational history as well as some of his views on education (Aptheker, 2001; Provenzo, 2002; Sundquist, 1996; Zuckerman, 2004) resonate with contemporary thought on outstanding performance and gifted and talented education (e.g., Colangelo, Assouline, & Gross, 2004; Gladwell, 2008; Subotnik, Olszewski-Kubilius, & Worrell, 2011; Syed, 2010; Wai, Lubinski, Benbow, & Steiger, 2010).

Biography

Family

Du Bois was born on February 23, 1868, in Great Barrington, a small town in Massachusetts, located approximately halfway between Boston and New York. He was the only child of Mary Silvina Burghardt and Alfred Du Bois (Gates & Oliver, 2007). After his birth, Du Bois and his mother lived at his maternal grandfather's farm on the South Egremont Plain a few miles from Great Barrington. His immediate family consisted of his “very dark grandfather, Othello Burghardt” (Du Bois, 1940/2007, p. 5); his grandmother, Sally; his mother; and his older halfbrother, Idelbert, who was the son of his mother and her cousin, John Burghardt. Du Bois and his mother moved back to Great Barrington in 1872 after his grandfather died.

Although Du Bois' (1968, 1940/2007) descriptions of his early life are not bitter, he is clear about issues that promoted discord in the family. Du

Bois' parents were married, a point that was certainly important at that time, and important to Du Bois, given statements that he made about his parents' marriage and in reference to his half-brother: “So far as I ever knew there was only one illegitimate child throughout the family in my grandfather's and the two succeeding generations” (Du Bois, 1940/2007, p. 6). Nonetheless, he was raised by a single mother. After his birth, Du Bois' father “went away to establish a home for his family” (Du Bois, 1968, p. 72). Alfred Du Bois did send for his wife and son a few months later, but they never went to live with him, in part because his mother was hesitant about moving away from her family and the town she knew.

Additionally, the Burghardts did not like Alfred Du Bois—a situation that was made quite clear—and they objected to Mary Burghardt going to live with her husband. In his autobiography, Du Bois stated,

> When my father came to Great Barrington in 1867, the Black Burghardts did not like him. He was too good-looking, too White. He had apparently no property and no job, so far as they knew; and they had never heard of the Du Bois family in New York. Then suddenly in a runaway marriage, but one duly attested and published in the *Berkshire Courier* , Alfred married Mary Burghardt and they went to live in the house of Jefferson McKinley. Here they lived for a year or two and against them the Black Burghardt family carried on a more or less open feud, until my birth…. They still looked askance at my father and he was not attracted by them…. The result was in the end that mother never went and my father never came back to Great Barrington. If he wrote, the letters were not delivered. I never saw him, and know not where or when he died. (Du Bois, 1968, pp. 72–73)

The events surrounding the births of her sons took a toll on Du Bois' mother. Du Bois (1968) commented that his mother had become “silent” and “repressed” after the birth of his older brother, and he suggested that her unhappiness was due to the fact that she had not been allowed to marry her first cousin with whom she had the child. Du Bois does not indicate how he found out this information but does say, “no one talked of it in the family” (Du Bois, 1968, p. 65).

Mary Du Bois became depressed again after the decision was made not to go and live with Alfred, a situation that was not lost on her son:

> My mother seldom mentioned my father. She was silent before family criticism. She uttered no word of criticism or blame. I do not remember asking much about him. Why, I am not sure; but I think that I knew instinctively that this was a subject which hurt my mother too much even to mention. (Du Bois, 1968, p. 73)

In 1879, when Du Bois was 11, his mother had a stroke, which left her partially paralyzed—"lame in her left leg, with a withered left hand" (Du Bois, 1968, p. 74)—although she continued to work. Mary Du Bois died in the fall of 1884 when Du Bois was 16 years old. Du Bois continued to live in Great Barrington, where he boarded with an aunt, and he worked as a timekeeper on a building project at "the fabulous wage of a dollar a day" (Du Bois, 1940/2007, p. 10), before beginning college in the fall of 1885.

Du Bois had mixed feelings about his mother's death:

> I felt a certain gladness to see her at peace at last, for she had worried all her life…. There followed the half-guilty feeling that I could begin life without forsaking my mother. I had realized all along that even college would not have induced me to leave my mother in want…. Now I was free and unencumbered and at the same time more alone than I had ever dreamed of being. (Du Bois, 1968, p. 102)

Despite these circumstances, Du Bois' recollections of his childhood are generally positive. He recognized that they were poor but indicated that there was no *sense* of growing up in poverty. There was always food to eat and clothing to wear. Indeed, he reported that he had his own bedroom from the age of 12 and did not recognize that this was very rare for his time and circumstances.

Social Context

Great Barrington was an interesting community for Du Bois' development, in large part because it insulated him to a large extent from the extreme anti-Black prejudices and racism of the times. In *Dusk of Dawn: An Essay Toward an Autobiography of a Race Concept* , Du Bois commented that "physically and socially [Great Barrington] belonged to the Dutch valley of the Hudson rather than to Puritan New England, and travel went south to

New York more often and more easily than east to Boston," (1940/2007, p. 4), and he described the town as beautiful and provincial. There were hills, rivers, lakes, orchards, and caves, and "all of it was apparently property of the children of the town" (Du Bois, 1940/2007, p. 7). Although the town had two hotels and a bank, Great Barrington had very few wealthy individuals, with the population consisting primarily of merchants, tradesmen, and farmers of Dutch and English descent. The gap between the wealthy and the poor was not great, and there was no obvious abject poverty. "There was some inherited wealth but not in very large amounts. There were no idle rich and no outstanding 'society'" (Du Bois, 1968, p. 78). Perhaps consequently, "the color line was manifest and yet not absolutely drawn" (Du Bois, 1940/2007, p. 5).

Du Bois estimated that African Americans made up somewhere between 25 and 50 of the 5,000 residents of Great Barrington—that is, less than 1%—and most of the Black families were longstanding residents of the area and known to the White families. He had little personal experience with discrimination in his childhood years and commented that racism was more evident against the Irish than against him personally. Du Bois (1940/2007) speculated that his reticence to be involved in activities may have saved him from experiencing discrimination earlier, as he had to be asked to participate in activities and did not ask himself. His natural abilities in several domains (e.g., exploring, story-telling, planning games, intellectual activities) resulted in his often being the leader, and thus, he was often the one being courted.

Importantly, Du Bois did not learn to associate race with poverty or intelligence when he was a child:

> Less clearly, I early realized that most of the Colored persons I saw, including my own folk, were poorer than the well-to-do Whites; lived in humbler houses, and did not own stores. None of the Colored folk I knew were so poor, drunken and sloven as some of the lower class Americans and Irish. I did not then associate poverty or ignorance with color, but rather with lack of opportunity; or more often with lack of thrift, which was in strict accord with the philosophy of New England and of the 19th century. (Du Bois, 1968, p. 75)

Du Bois heard about discrimination from cousins and other family members, but he could not relate to these experiences as he was outperforming all of the students at his school, where he was the only African American most of the time. Du Bois reported that he had access to the homes of all the children in Great Barrington, homes that were larger, more modern, and filled with more things, but the homes did not differ in substance. Children of summer visitors who stayed at the hotels had more impressive clothing but were generally weaker, too overdressed for play, and did not seem "to differ in kind from himself" (Du Bois, 1968, p. 77).

Elementary and Secondary Education

The context of Great Barrington also proved propitious for Du Bois' access to early, high-quality schooling. His family had been school attendees for several generations, and most of them could read and write. Moreover, the idea of regular attendance at school was an important lesson in his upbringing, and he noted that he was "seldom absent or tardy" (Du Bois, 1968, p. 77). Great Barrington had good schools with strong teachers and enforced the truancy laws; thus, attending school was expected by the community, and in Du Bois' case, by his mother:

> The secret of life and the loosing of the color bar, then, lay in excellence, in accomplishment. If others of my family, of my Colored kin, had stayed in school instead of quitting early for small jobs, they could have risen to equal Whites. On this my mother quietly insisted. There was no real discrimination on account of color—it was all a matter of ability and hard work. (Du Bois, 1968, p. 75)

Du Bois began school around age 6 and continued in the same compound, which housed the primary school, grammar school, and high school, until he graduated with his high school diploma from Great Barrington High School in 1884 at age 16.

Du Bois' early education was traditional. He attended school from 9:00 a.m. to noon and 1:00 to 4:00 p.m. 5 days a week and 10 months a year, and not unlike elementary schools today, his teachers were White females. They studied reading, writing, and arithmetic, alongside spelling, grammar, history, and geography (Du Bois, 1940/2007, 1968). Du Bois was an

exceptional student, which he attributed to natural ability and regular attendance, and his outstanding performance on academic tasks resulted in educational accelerations and protected him from slights. He also acknowledged that his abilities were not evenly distributed; thus, while excelling the academic domains came easily to him, he was less skilled at and had to work harder at drawing and some sports.

His academic bent is evident in his recollections of singular events in his early life. For example, he was impressed with a townsman who was documenting the history of Great Barrington, and he had fond memories of a bookstore in the town and its owner, Johnny Morgan. He visited the bookstore often as Mr. Morgan allowed him to look at books, magazines, and newspapers. Du Bois started a library at home with books that were lying around the house and during his second year of high school purchased his first book—a five-volume history of England—from Mr. Morgan's bookstore. He had to purchase the book "on installments … not a usual method at that time" (Du Bois, 1968, p. 87), but the suggestion to do so came from Mr. Morgan himself. In high school, he was coeditor of a school paper, the *Howler* , although they only put out a few issues, and also with Mr. Morgan's patronage became local correspondent "of the *Springfield Republican,* which was the most influential and widely circulated newspaper in western Massachusetts" (Du Bois, 1968, p. 88).

The principal of Great Barrington High School, Frank Hosmer, also contributed to Du Bois' educational trajectory. The jobs that were available to African Americans were limited and did not require much education. Thus, it was not typical or even appropriate for African Americans to aspire to college. Nonetheless, Hosmer told Du Bois that he should take the college preparatory classes, which included mathematics (algebra and geometry) and classical languages (Latin and Greek). Du Bois observed that he would have followed Hosmer's advice if the latter had suggested agricultural science or subjects more in keeping with "a Negro's 'place'" (1940/2007, p. 7). Du Bois' textbooks were more expensive than his mother and family could afford and were purchased by the mother of one of his playmates, the wife of a mill owner. As a student preparing for college, he said, "I was thrown with the upper rather than the lower social classes and protected in many ways" (Du Bois, 1940/2007, p. 8).

While in high school, Du Bois was invited to visit his paternal grandfather who lived in New Bedford. Thus, he got to leave Great

Barrington, and on his trip to New Bedford and back, he visited Hartford, Providence, Amherst, Martha's Vineyard, Springfield, and Albany, where he saw an electric streetlight for the first time. It would be remiss not to point out that Du Bois was just an ordinary lad, in spite of his extraordinary intellect. He recounted participating in a fight at lunch, and he could have been sent to reform school after stealing some prize grapes with friends, if the owner of the vineyard had chosen to press charges. He also worked in high school at a variety of jobs. In 1884, Du Bois was the only African American in his high school graduation class of 13. His mother was proud to see her son graduate, but she died less than a year later; she never got the opportunity to see him attend college.

Tertiary Education

Not surprisingly, given his geographic location and intellect, Du Bois wanted to attend Harvard, and it is as an emerging adult that the realities of being Black and poor in America in the late 1800s began to affect him in a major way: “I was an orphan ‘without a cent of property,’ and no relative who could for a moment think of undertaking the burden of my further education” (Du Bois, 1968, p. 102). Indeed, the majority of his classmates, all White, did not plan to attend college. Du Bois was not able to attend Harvard for two major reasons: He did not have the financial resources required to attend, and the graduation diploma from Great Barrington High School did not meet Harvard's requirements for college entrance. Nonetheless, his college aspirations were supported by “three White men in Great Barrington who seemed to have clear ideas as to my future” (Du Bois, 1968, p. 102), his high school principal, the principal of the local private school who was superintendent of the Sunday School that Du Bois attended, and a classmate's father who was also a Congregational minister. After working for a year, he was able to attend Fisk University, a historically Black university which had been founded in 1866 in Nashville, Tennessee. His education at Fisk was supported by a scholarship, which was provided by four churches in Massachusetts and Connecticut and arranged by his classmate's father, the minister. Despite being underprepared for Harvard, in the fall of 1885, Du Bois entered Fisk as a sophomore and completed his degree in three years.

At Fisk, Du Bois continued to excel academically. Entering as a 17-year-old sophomore with most of his classmates several years older marked him as exceptional, and he continued to be an outstanding student. He edited the *Fisk Herald* , sang with the Mozart Society, and got as much as he could get from the school, which he appreciated but found limited: “Fisk was a good college; I liked it; but it was small, it was limited in equipment, in laboratories, in books; it was not a university. I wanted the largest and the best in organized learning” (Du Bois, 1968, pp. 123–124).

However, Fisk contributed greatly to his education on racism in America, setting the stage for much of the rest of his life's work:

> What was wrong was that I and people like me and thousands of others who might have my ability and aspiration, were refused permission to be a part of this world…. My problem then was how, into the inevitable and logical democracy which was spreading over the world, could Black folk in America and particularly in the South be openly and effectively admitted … [Moreover] lynching was a continuing and recurrent horror during my college days: from 1885 to 1894, seventeen hundred Negroes were lynched in America. Each death was a scar upon my soul. (Du Bois, 1940/2007, pp. 14–15)

Du Bois describes his years at Fisk as years in which he developed as he witnessed and experienced segregation, discrimination, Jim Crow laws, and racial conflict: “I came in contact for the first time with a sort of violence that I had never realized in New England” (Du Bois, 1940/2007, p. 15).

Nonetheless, even while going to Fisk, Du Bois had not given up on his intention to attend Harvard. Upon receiving his undergraduate degree in 1888, he applied to Harvard and was admitted, but as a junior, not as a graduate student. Du Bois contended that he was accepted at Harvard due to luck more than anything else; Harvard was in the process of diversifying its student body and was offering scholarships to African Americans. At Harvard, Du Bois continued to thrive; he also earned his first non-passing grade on a written assignment (an “E” (no credit), which he raised to a “C” by the end of term), leading him to conclude that “while style is subordinate to content … solid content with literary style carries a message further than poor grammar and muddled syntax” (Du Bois, 1960/2002, p. 42). He

completed his undergraduate degree in 1890 *cum laude* and was one of five graduating students selected to give a talk at commencement.

He was described by one professor as "the star of the occasion…. an excellent scholar in every way, and altogether the best Black man that has come to Cambridge," and Bishop Potter of New York wrote, "Here is what an historic race can do if they have a clear field, a high purpose, and a resolute will" (Du Bois, 1968, p. 147). Du Bois applied for and received a scholarship to attend graduate school at Harvard, where he was awarded a master's degree in 1891. Upon completing his master's he was elected to membership in the American Historical Society, to which he gave one of the "three best papers presented" according to the *New York Independent* (Du Bois, 1960/2002, p. 45). Du Bois lobbied for and received, after several letters, a fellowship to further his studies at the University of Berlin because he recognized that "any American scholar who wanted preferment went to Germany for study" (Du Bois, 1960/2002, p. 46). In 1895, he became the first African American to receive a Ph.D. from Harvard (Gates & Oliver, 2007), and his dissertation, entitled, "The Suppression of the African Slave Trade to the United States of America, 1638–1870," became the first publication (1896) in Harvard's historical monograph series (http://www.library.umass.edu/spcoll/duboisopedia/doku.php?id=about:harvard_university).

Upon returning from Europe in 1894 a year prior to completing the Ph.D., Du Bois (1968) had difficulty in obtaining employment and described his letter writing campaign in search of a job as begging for any type of work anywhere.

> 'President of so and so college: Sir: I am a Negro, 27 years of age, educated in the public schools of Massachusetts, at Fisk University, Nashville and Harvard University, where I took the degrees of A.B. and A.M. I wish to teach next year. Have you a vacancy, etc.' I wrote so many that I scarcely remember where. The months rolled by and answers came slowly—brief no's polite regrets, general disclaimers and one or two vague notes with dubious hopes … and yet I say it wasn't too much for a colored man with a Harvard A.M. to expect a bread and butter job, was it? (Du Bois, 1968, p. 185)

Letters to Fisk University, the Hampton Institute, Howard University, and the Tuskegee Institute yielded no fruit as the schools had no openings. Despite his accomplishments, Du Bois "wrote to no White institution—I knew there were no openings there" (Du Bois, 1968, p. 184). He eventually received several offers, accepting the first one as a Chaired Professor of Classics at Wilberforce University in Ohio with an annual salary of $800.

Post-doctorate

Du Bois went on to become one of the most well-known and controversial public intellectuals of the twentieth century. He held academic appointments at Wilberforce University (1884–1896), the University of Pennsylvania (1896–1897), and Atlanta University (1897–1910, 1934–1944), and over the course of his life time, he published several well-known essays and books and gave numerous addresses. The centennial of his publication of *The Souls of Black Folk* , perhaps his most well-known work, was celebrated in 2003. Many of his shorter pieces are published in a variety of collections (e.g., Aptheker, 1973; Foner, 1970; Lewis, 1995; Provenzo, 2002; Sundquist, 1996; Zuckerman, 2004), some are available digitally at one of his archives (http://www.library.umass.edu/spcoll/-dubois/?page_id=863), and a complete list of his books can be found in an appendix at the end of his 1968 autobiography. Provenzo's (2002) bibliography also included several books written about Du Bois.

Confronting Race and Racism

Although Du Bois got his first major glances at racism and discrimination against Blacks when he lived in the South, he confronts it more fully upon his return to the United States after his study sojourn in Europe. "As a student in Germany, I built castles in Spain and lived therein. I dreamed and loved and wandered and sang; then after two long years I dropped suddenly back into 'nigger'-hating America" (Du Bois, 1968, p. 183). And after completing his doctorate, Du Bois began a long process of disenchantment with the notion that integration would be possible in the United States, in large part due to the realization that the color of people's skin mattered much more than their scholarly competence and academic pedigrees.

At the University of Pennsylvania, Du Bois—with a Ph.D. from Harvard—was given a one-year appointment as an "assistant instructor," but his name and appointment "never actually got into the catalogue" (Du Bois, 1940/2007, p. 30). He was not allowed to meet with the students or interact with the faculty. Nonetheless, while he was working on this project (*The Philadelphia Negro*), Du Bois still believed that scientific study could solve America's social ill of racism and that academic merit would trump racial discrimination:

> The Negro problem was in my mind a matter of systematic investigation and intelligent understanding. The world was thinking wrong about race, because it did not know. The ultimate evil was stupidity. The cure for it was knowledge based on scientific investigation…. I did it despite extraordinary difficulties both within and without the group. Whites said: Why study the obvious? Blacks said: Are we animals to be dissected and by an unknown Negro at that?…. I studied it personally and not by proxy. I sent out no canvassers. I went myself. Personally, I visited and talked with 5,000 persons. (Du Bois, 1968, p. 197)

Du Bois' solo labors produced a scientific study called *The Philadelphia Negro* , "a formidable tome of nearly a thousand pages [published by the University of Pennsylvania that] has withstood the criticism of 60 years" (Du Bois, 1968, pp. 197–198).

The year at the University of Pennsylvania proved pivotal in at least two major ways. First, Du Bois expected that *The Philadelphia Negro* would result in a *visible* appointment at the University, but this never materialized, despite the fact that "White academic classmates of lower academic rank than I, became full professors at Pennsylvania and Chicago" (Du Bois, 1968, p. 199). Second, in completing this project, Du Bois "had at last learned just what I wanted to do, in this life program of mine, and how to do it" (Du Bois, 1968, p. 198), to spend his life studying African American issues. He also learned that he could not convince scholars at the leading universities—Harvard, Columbia, and Penn—to take up the systematic study of African American issues that he had laid out in *The Philadelphia Negro* , and he devoted the rest of his life to studying and advocating for African Americans and individuals of African descent.

In 1897, Du Bois was one of the founding members of the American Negro Academy, dedicated to the scholarly achievement of African Americans. He participated in the first Pan-African Congress in London in 1900 and was a leading figure in the subsequent Pan-African Congresses in 1901, 1921, 1923, 1927, and 1945 (Gates & Oliver, 2007). In 1905, he co-founded the Niagara Movement; this group defined itself as

> against both racial oppression and Washingtonian conciliation, demanding immediate freedom of speech and press, full suffrage, the "abolition of all caste distinctions based simply on race and color," a "recognition of the principle of human brotherhood as a practical present creed," and a belief in the dignity of labor. (Niagara Movement, n.d., "The Niagara Movement emerged," para. 1)

Du Bois was general secretary of the Niagara Movement until it disbanded in 1910 due to a lack of financial resources and internal dissension. In 1909, the last year that the Niagara Movement had a conference, Du Bois joined the National Negro Committee, soon renamed the National Association for the Advancement of Colored People (NAACP) and in 1910 became the NAACP's director of publications and research and the only Black member of its board of directors (Gates & Oliver, 2007). He represented the United States at the inauguration of the President of Liberia in 1923 and was a delegate representing the NAACP at the first meeting of the United Nations in 1945. These and his many other contributions can be found in chronologies of his life (Gates & Oliver, 2007; http://www.library.umass.edu/spcoll/dubois/?page_id=860).

Controversy

However, as Du Bois' dreams of integration dimmed, his disillusionment with the social system in America increased. He joined the Socialist Party in 1911 but resigned from the party in 1912. In 1934, he resigned from the NAACP and published several editorials in support of voluntary segregation and criticized integration; he also visited several countries in 1936, including the Soviet Union and China. In 1946, Du Bois edited a collection of essays appealing to the United Nations to speak out against racial discrimination in the United States; at the United Nations, the

proposal was supported by the Soviet Union, but opposed by the United States. In 1950, Du Bois was elected as Chair of the Peace Information Center, “an organization dedicated to the international peace movement and the banning of nuclear weapons” (Gates & Oliver, 2007, p. 176). This organization was forced to disband by the U.S. Justice Department, and Du Bois and several other former officers were indicted in February 1951 as foreign agents.

> I am at present … what is called in America “a controversial person” because I insist that a man can be a Socialist or a Communist or anything else that he so desires and that punishment and discrimination because of belief is barbarism. (Du Bois to E. S. Pankhurst, May 4, 1955)

Du Bois was acquitted in the trial that followed, but the government confiscated his passport, effectively restricting him from any further international travel. He applied for and was denied a passport in 1955 (for travel to Poland and Indonesia), in 1956 (for travel to China), and in 1957 (for travel to Ghana). Du Bois continued to be an outspoken critic of racism, lending his support to Martin Luther King Jr. on the Montgomery bus boycott in 1956. In 1958, Du Bois regained his passport based on a Supreme Court ruling, but it was clear that his last decade in the United States was not a happy one. In this era of anti-communist hysteria, it did not help that communists helped with his defense fund or that Du Bois spoke out in favor of the individual's right to be a communist (Du Bois, 1968). He was effectively blacklisted by the government, which restricted one of his most valued and potent tools, his ability to communicate.

> When we entertained a Soviet diplomat, his wife and daughter, and Paul Robeson, the whole borough of Brooklyn was declared ‘out of bounds’ for Soviet diplomats…. My manuscripts and those of Shirley Graham were refused publication by reputable commercial publishers…. Negro newspapers were warned not to carry my writings…. Colleges ceased to invite my lectures…. From being a person whom every Negro in the nation knew by name at least and hastened always to entertain or praise, churches and Negro

> conferences refused to mention my past or present existence. (Du Bois, 1968, p. 394)

Indeed, even the University of California—noted for its commitment to social justice and equity—refused to allow Du Bois to speak: “It was a bitter experience and I bowed before the storm. But I did not break. I continued to speak and write when and where I could” (Du Bois, 1968, p. 394).

As tragic as this blacklisting was, it was perhaps made even more so, given the reason. Du Bois did not consider himself a communist. In 1926, after a visit to the Soviet Union, Du Bois (1968) commented that the platform of the Communist Party of the United States was of no use to African Americans. Even when he taught a graduate course on communism at Atlanta University in 1934, he noted, “I had no thought of propaganda. I was not and never had been a member of the Communist party [but] I was convinced that no course of education could ignore this great world movement” (Du Bois, 1968, p. 308). Subsequently, however, Du Bois joined the Communist Party of the United States and moved to Ghana in 1961; he became a citizen of Ghana in 1963 and died there in August at the age of 95. One cannot help but wonder if these decisions were not a response to America's extraordinary defamation.

It is also important to point out that until he took Ghanaian citizenship, Du Bois was a fervent American patriot. Although he was concerned about African peoples, his concern for African Americans was personal and based on the ideals that America claimed to live by, and he viewed the treatment of African Americans as a tragic distortion of America's values:

> I know the United States. It is my country and the land of my fathers. It is still a land of magnificent possibilities. It is still the home of noble souls and generous people. But it is selling its birthright. It is betraying its mighty destiny. (Du Bois, 1968, p. 419)

Du Bois considered himself an African American, not an African. When his wife, Shirley Graham, delivered his address in Accra at the All-African Peoples' Conference in November 1958—Du Bois was too ill to travel—he observed that “she was the only non-African allowed to address the assembly” (Du Bois, 1968, p. 402). In the end, Du Bois struggled to

reconcile his vile treatment by the U.S. Government with the increased opportunities for African Americans: “The color line was beginning to break. Negroes were getting recognition as never before. Was not the sacrifice of one man, small payment for this?” (Du Bois, 1968, p. 395).

Commendations

In spite of the controversies, Du Bois' contributions were recognized in many ways. He received honorary doctorates from Charles University (Prague), Atlanta University, Fisk University, Howard University, Humboldt University (East Berlin), Morgan State College, the University of Ghana, and Wilberforce University (Aptheker, 1968; Du Bois, 1968; Gates & Oliver, 2007). In 1953, Du Bois was awarded the International Peace Prize by the World Peace Council, and he was awarded the Lenin Peace Prize in 1959, the Soviet Union's counterpart to the Nobel Peace Prize. The New York Public Library dedicated a bust of Du Bois in 1957 at the height of the controversy, and the United States Postal Service commemorated Du Bois with stamps in 1992 and 1998 (Gates & Oliver, 2007).

Du Bois' Contributions to Gifted Education

The Talented Tenth

In 1903, Du Bois published two pieces that are among his most well-known. One of these works is the book, *The Souls of Black Folk* , and the other was an essay that begins with these words:

> The Negro race, like all races, is going to be saved by its exceptional men. The problem of education, then, among Negroes must first of all deal with the Talented Tenth; it is the problem of developing the Best of this race that they may guide the Mass away from the contamination and death of the Worst, in their own and other races. (Du Bois, 1903b/2003, p. 33)

Originally articulated by Morehouse (1896), the notion of the Talented Tenth is probably the first that springs to mind when one thinks of Du Bois' contribution to gifted education, and this theme is echoed in much of his

writing. There are several direct corollaries to the Talented Tenth in gifted education. For example, it is not difficult to see the relationship of this idea to the process of identifying the top 2% to 3% of students for gifted placement as is done in most states, currently. This idea is also evident in the state of Texas' "Top 10% Plan" (House Bill 588, 1997), which, since 1997, guarantees all high school graduates in the top 10% in that state a place at one of the state's public universities. In 2007, the Texas legislature also guaranteed funding for low-income students in Texas in the top 10% who choose to attend a public university.

Du Bois' Talented Tenth notion is also related to Lohman's (2005) recommendation to use local school- or district-level norms in identifying minority and low-income students for gifted education. As Lohman pointed out, individual schools are seldom representative of national norms, and the disparity between national and local norms is greatest in the schools serving minority and low-income students where the gifted identification rates are lowest. According to Lohman, students who are thriving in these environments are demonstrating that they have the potential to make the best of what they have and are appropriate candidates for gifted placement, especially if one is really interested in identifying intellectual potential and not fully formed intellects. However, Du Bois' contributions to gifted education are more profound than providing a base rate for selection. Many of his other thoughts about education also have implications for the field.

The Elements of Giftedness

Individuals who are familiar with my work know that I spend time thinking about what constitutes giftedness (e.g., Erwin & Worrell, 2012; Subotnik et al., 2011; Worrell, 2003, 2010b; Worrell & Erwin, 2011), and have argued that gifted-ness consists of many facets, including ability, effort, opportunity, chance, effective teaching, and actual accomplishment, among others (Worrell, 2010a, 2012). Du Bois' views on many of these topics predate mine by several decades.

Ability. Du Bois clearly acknowledged individual differences in ability and the role that these played in accomplishments. He commented on these issues from as early as his high school days: "One girl … surpassed me in arithmetic. She could add up columns of figures with amazing rapidity, but my grasp of history and ability to write were better than hers" (Du Bois,

1968, p. 84). As the idea of the Talented Tenth indicates, he held on to the notion of individual differences in ability for the rest of his life, using it to describe individuals at Fisk, Harvard, and Berlin. He described a colleague at Fisk as "a slight Black boy whom the average American would have completely ignored" but whose "clear tenor voice rose with singular beauty" (Du Bois, 1968, p. 123).

Effort. Du Bois' notion of ability was not one of a gift fully endowed. He was equally clear about the importance of effort or task commitment in making ability manifest (Subotnik et al., 2011; Syed, 2010). Du Bois reported working hard to excel from his early years, and he took this work ethic with him to Fisk, to Harvard, to Berlin, and to his work after obtaining his doctorate. He appreciated the expenditure of effort by others as well. In his early years of schooling, he worked hard to learn, but by the time he got to Harvard, his hard work had one additional driver—racism. He noted that Fisk had prepared him for Harvard because he would have tried to include Whites within his social circle if he had gone straight to Harvard from Great Barrington:

> To make my own attitude toward the Harvard of that day clear, it must be remembered that I went to Harvard as a Negro, not simply by birth, but recognizing myself as a member of a segregated caste whose situation I accepted. But I was determined to work from within that caste to find my way out…. I did not pick out "snap" courses. I was there to enlarge my grasp of the meaning of the universe. (Du Bois, 1960/2002, p. 33)

It is important to note that he worked hard on both schoolwork and work outside of school. He worked to help support his mother during high school, and he worked to support himself at the universities he attended, both during the semesters as well as on vacations. Du Bois also believed that African Americans were hard workers. He described them as,

> the most illiterate group in the United States; the group from whom illiteracy was for two centuries compulsory, and a group which by its own efforts, as well as the efforts of friends has done more to reduce its illiteracy than any similar group in the world in the same length of time. (Du Bois to W. J. Cooper, December 18, 1929)

Opportunity and Chance. Opportunity and chance are also important elements in the development of outstanding talent (Subotnik et al., 2011). In Du Bois' case, he grew up in a town where he was shielded from the insidious forces of the time and was provided with opportunities and support which allowed him to pursue an education, rare for many and rarer still for African Americans. The list of opportunities afforded Du Bois is a long one: being allowed to complete high school, to take the college preparatory courses, to have his books paid for, and to get a scholarship to Fisk, to Harvard, and to Berlin. Du Bois also felt that the opportunities that he received should be available to all African Americans: "I should recommend for the average Colored child the same course of study as for the average White child" (Du Bois to B. Douglas, March 17, 1926).

However, opportunities that are offered have to be accepted. Du Bois took up all of the opportunities he was offered and sought and created opportunities where they were not necessarily forthcoming. He pointed out that his attending Harvard was determined to some extent by chance; Harvard was offering scholarships intended to diversify the institution. Du Bois decided to apply for the scholarship and to attend Harvard, despite the fact that he was admitted as a junior and not as a graduate student.

Du Bois also applied for a scholarship from the Slater Fund, headed by former U.S. President Rutherford B. Hayes. Hayes had been quoted in the *Boston Herald* , saying that the fund would give a scholarship for advanced studies in Europe to a colored man if one could be found that had "any special aptitude for study" (Du Bois, 1968, p. 151). Du Bois, having completed his masters at Harvard, applied and was told that the newspaper report was inaccurate and that the scholarship no longer existed. He engaged in a letter writing campaign to Hayes and the board of the Slater Fund, and he also solicited letters on his behalf from his teachers. Du Bois wrote, "I rained recommendations upon Mr. Hayes. The Slater Fund surrendered, and I was given a fellowship of $750 to study a year abroad" (Du Bois, 1968, p. 153).

Effective Teaching. Effective teachers are important elements on the road to eminence, and Du Bois had these in abundance. As he reported, Great Barrington had good schools with effective teachers, which became evident as he went on to college at Fisk and Harvard. Du Bois distinguished between good teachers and teaching resources, commenting that the teachers at Harvard were not better but better known. He also sought out

teachers for whom he had respect. In his autobiography, Du Bois highlighted the occasion on which he got a failing grade for his writing as an important lesson. He also extolled professors whom he admired, reveling "in the keen analysis of William James, Josiah Royce and young George Santayana" (Du Bois, 1968, p. 148). He credited William James for steering him away from philosophy and into the social sciences, and he had the ability to separate a person's ability to teach from their other qualities, both good and bad. It is not a stretch to suggest that Du Bois' educational journey provides support for the three types of teaching that Sosniak (1985) wrote about—that is, teaching for falling in love with learning (in Great Barrington), teaching for technique (at Fisk), and teaching for a personalized niche (at Harvard): "Certainly, I cannot imagine any of my writing being possible without the training which I received in college" (Du Bois to O. E. Ferguson, January 22, 1929).

Accomplishments. Du Bois appreciated accomplishments. As noted previously, he celebrated the success of classmates throughout his educational trajectory, even when they excelled at his expense. For example, he recounted coming in second in an oratory contest at Harvard and was appreciative of the talents of Clement Morgan, who came in first. Du Bois celebrated when Mr. Morgan was selected as the first African American class orator at Harvard a year later, and he despaired when individuals were not judged on their merits. He complained that even at Harvard, "the class poet, class orator and other commencement officials invariably were selected because of family and not for merit" (Du Bois, 1968, p. 140).

Minorities in Gifted Education

Although Du Bois popularized the notion of the Talented Tenth in the first few years of the last century, it is still an important concept today. There have been other outstanding minority students and scholars, but in terms of percentages, African Americans, Latinos, and American Indians are still underrepresented in gifted and talented education programs. As Plucker, Burroughs, and Song (2010) highlighted, in addition to the traditional achievement gap, there is an excellence gap. Using data from the National Assessment of Educational Progress, these authors pointed out that fewer than 3% of African Americans or Latinos are performing at the advanced

levels in reading or mathematics in Grades 4 and 8. Thus, more than a century after Du Bois' call, there is still not a Talented Tenth to celebrate, which represents a major failure of public education in the country that is supposed to be the richest in the world (Subotnik et al., 2011; Worrell, Olszewski-Kubilius, & Subotnik, 2012).

Du Bois believed in providing opportunities to all. As he argued, "the question of whether American Negroes were capable of education was no longer a debatable one [as far back as] in 1876. The whole problem was simply one of opportunity" (Du Bois, 1935, p. 589). Although Du Bois would argue that there was a lack of opportunity due to racism in part, his writings suggest that he would argue equally strongly for task commitment and active engagement by students. While teaching at Atlanta University, Du Bois dropped three members of the football team from his sociology class because "they have been present in class only twice and have never recited nor handed in reports" (Du Bois to J. P. Whittaker, October 12, 1940), and he contended that it was not his job to teach graduate students as they should be able to teach themselves. Moreover, he dismissed the notion of Black learning styles as a pretext for not teaching African Americans: "The statement that Colored children develop differently at certain ages from White children is a silly lie which some persons use to cover up their own prejudice" (Du Bois to M. A. Caldwell, May 22, 1919).

Conclusion

In concluding, I think it is important to review briefly the broader social context in which Du Bois lived. He was born five years after the Emancipation Proclamation was signed and three years after the end of the Civil War. On the basis of these precursors to freedom and equality and the singular circumstances of his upbringing in Great Barrington, Du Bois aspired to the highest standards in education and performance for himself and his people: "Nothing could be too big and thorough for training the leadership of the American Negro" (Du Bois, 1968, p. 124). However, he became increasingly disillusioned as an adult, as he watched discrimination and racism trample on the hopes and dreams of African Americans. Indeed, he expressed surprise at the *Brown v. Board of Education* decision, which happened at the height of his persecution by the government (his trial as a

foreign agent was in 1951), and he would probably not be surprised at the recent reversals of that decision in many arenas.

Du Bois was clearly a gifted student. In addition to his ability and effort, he benefitted from receiving and taking advantage of extraordinary opportunities, including accelerated schooling. His life and his belief that gifted learners (the Talented Tenth) should receive gifted education—a liberal arts college education in his view—are both important precursors to many of the notions of gifted education that we have today. Given that his dream is still not fully realized (Du Bois, 1924/2009, 1903a/2009; Zuckerman, 2004), I think it is appropriate to end with these poetic words Du Bois wrote to a nation that still sometimes finds it hard to see merit in people of darker hues:

> I sit with Shakespeare and he winces not. Across the color-line I move arm in arm with Balzac and Dumas, where smiling men and welcoming women glide in gilded halls. From out of the caves of evening that swing between the strong-limbed earth and the tracery of the stars, I summon Aristotle and Aurelius and what soul I will, and they come all graciously with no scorn nor condescension. So, wed with Truth, I dwell above the Veil. Is this the life you grudge us, O kingly America? Is this the life you long to change in to the dull red hideousness of Georgia? Are you so afraid lest peering from this high Pisgah, between Philistine and Amalekite, we sight the Promised Land? (Du Bois, 1902/2002, pp. 62–63)

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5

GREAT INVESTIGATORS

Jennifer L. Jolly

Building on the work of Francis Galton, extending the work of Alfred Binet, and contradicting the work of Cesare Lombroso, Lewis Terman, Leta Hollingworth, and Catharine Cox Miles set in motion a series of studies that would provide the space from which the field of gifted education would contract and expand during its nearly 100 years of existence. The intentions of their investigations differed in focus and meaning. Terman concentrated on description, definition, and identification of giftedness and how this related to the prediction of future success. Hollingworth's intentions lay in the description and education of the gifted. Cox also sought to describe the gifted genius but in an infinitely different but no less scientific way than her contemporaries by employing methodologies of history and imposing them on psychological principles and theories. The greatness of their investigations stem from two aspects: (a) the innovativeness of their undertakings and (b) the sense making achieved from the sheer magnitude and scope of the data. Their investigations spawned conceptual and empirical activity that continues in the twenty-first century.

Modern psychology as an empirically-based field established in 1879 by Wilhelm Wundt had been gaining prominence and acceptance in the early twentieth century (Lagemann, 2000). For example, due in part to the work of Terman, large-scale intelligence testing conducted on World War I recruits solidified to both the academic community and general public the usefulness of psychological procedures. Psychology's "technologies of influence" (Lagemann, 2000, p. 71) exponentially exploded during the 1920s and remain prominent in the current educational milieu. As research psychologists, Terman, Hollingworth, and Cox Miles used the science and instrumentation of their field to further the understanding of gifted children

and their educational needs. These included research methodologies, statistical analyses, and psychological and educational testing (Asher, 2003).

The most recognizable figure of the four, Lewis Terman, began life far from Stanford University on an Indiana farm. As the youngest of 14 children, Terman sought a life more stimulating than the monotonous one that farm life offered him. As Terman set his sights on entering the teaching profession, his teachers and family encouraged him to continue his studies, leading him to Clark University and G. Stanley Hall, the first American to obtain a Ph.D. in psychology (Lagemann, 2000). Terman's longitudinal study of over 1,500 gifted students chronicled in the five volumes of *Genetic Studies of Genius* remains the longest ongoing longitudinal study to date; for many the termination of the study only comes after their death, since in 2000, approximately 200 Termites were still living (Leslie, 2000). Terman's research assistants scoured California to find subjects for the study. Despite Terman's massive contributions, he is both revered and vilified. While amassing the body of data that would provide a cornerstone from which the field sprung, Terman reflected the hereditarian-centric and eugenic views of his time regarding minorities and those from impoverished backgrounds, believing these groups were less intelligent and not eligible *stock* for giftedness. Contemporary scholars continue to reconcile his contributions to the field with his beliefs and practices.

Leta Hollingworth, born in Nebraska and raised in very challenging circum-stances, escaped an abusive step-mother by finding solace in her studies. Attending the University of Nebraska, she made her way to teaching and eventually married fellow student Harry Hollingworth. Following in her husband's footsteps, Leta eventually obtained her Ph.D. from Teachers College. Leta, Terman's East Coast contemporary, distinguished her work from Terman's by studying gifted children in their natural schooling environment. While Terman's graduate stu-dents had the most interaction with the children in his study, Hollingworth used the classroom as her laboratory, establishing special classes at PS 165 and Speyer School. Her work was also longitudinal in nature, and she followed her subjects into adulthood. Although Hollingworth differed from Terman in her perceptions of gifted children, she corroborated Terman's findings that on the whole gifted children were no more maladjusted than other children and refuted Lombroso's narrative that they were a sickly and

mentally unstable. However, she found that profoundly gifted children with IQs over 180 had unique affective needs. Her early death at the age of 56 in 1939 kept her from pursuing this line of research further. Hollingworth's tangled legacy also suffers from her ties to eugenics like so many psychologists of her time. She published articles extolling the need for parents of gifted children to have additional children in order to pass along their heritable traits to more children. Again contemporary scholars will need to gauge the benefits of Hollingworth's work against her beliefs and how those influenced her work.

The last figure in this section, Catharine Cox Miles, was born and raised in California. Her father, a mathematics professor at Stanford, grew up in very different circumstances than the two other figures in this section. Her entrance into the doctoral studies program at Stanford coincided with the beginning of Terman's longitudinal study. Terman hired Catharine as a research associate and served as her advisor. Originally her dissertation, a historiometic study of 301 geniuses, became the second volume in the *Genetic Studies* series. Although Cox Miles's contributions to gifted education waned after this opus, she continued in the academy gaining a position with her husband, Walter, at Yale.

The appearance of Hollingworth and Cox Miles in this text speaks volumes to their accomplishments, which are extraordinary given the societal context. Greater still are their achievements considering in 1920 only 62 women held Ph.D.'s in psychology, men outnumbered women in the field by three to one, and many of these women could only find work with their advanced degrees outside of academia (Jolly, 2010). Both were married to psychologists who supported and understood their work and recognized that the sole career of housewivery was not for Catharine or Leta.

The great investigators, perhaps fl awed in some of their beliefs, created the foundations from which gifted education grew and came into its own as a recognizable field of study. Just like the work of Galton, Binet, and Lombroso that planted the seeds for the study of giftedness, Terman, Cox Miles, and Hollingworth provided a large-scale empirical layer for future investigators to mine, extrapolate, and enlarge.

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6

LEWIS M. TERMAN

A Misunderstood Legacy (1877–1956)

Daniel L. Winkler and Jennifer L. Jolly

As Terman recounted in his autobiography, one evening in the late 1880s a traveling book salesman stopped at James and Martha Terman's home. The Termans were educated farmers with a library of about 200 books and a sizeable brood of literate children. Naturally, they were receptive to the salesman's offerings. As he cycled through books, providing synopses and explanations, the peddler eventually arrived at a book about phrenology. Phrenology analyzes the surface of the scalp in order to draw conclusions about people's behaviors and thoughts. Certain scalpel patterns and bumps predict criminality while other patterns predict charity. During his sales pitch, the salesman demonstrated the discipline by measuring the scalp of one of the youngest Termans, Lewis. After pensively feeling the boy's scalp, the salesman predicted that Lewis was destined for greatness, and though phrenology is a false prophet, the salesman was certainly prophetic. Lewis Terman would grow up to become one of the most eminent and influential educational psychologists in history (Terman, 1930).

A Bucolic Childhood

Terman was born and raised in rural Indiana. Agriculture was the family trade, as both of Lewis' parents were descended from farmers. According to Seagoe's biography of Terman (1975), Terman's father, James, was an introverted man with limited schooling and spent most of his youth working on farms. At 20, he began to work on the farm of William Cutsinger, a prominent man in Johnson County. The rustic county was just 17 miles

removed from Indianapolis, Indiana. After a year working on the farm, James had ingratiated himself into the family, and he eventually married one of Cutsinger's most spirited daughters, Martha (Terman, 1930). Mr. Cutsinger gave the couple some land, and together they started their own farm and family in Johnson.

Martha and James had a total of 14 children, 11 of whom lived to adulthood (Seagoe, 1975). Many of the children were born before or during the Civil War. Most were female. The Termans loved their children dearly and spent their lives providing for them, with James managing the farm and Martha the home. On January 15, 1877, in their 22nd year of marriage, Martha gave birth to an auburn-haired, 10pound baby, Lewis. He was the first Terman son in 12 years to survive infancy. As was and is the case in such large families, the older siblings often are left to care for the younger ones, and Lewis was largely looked after by an older sister. At age three he was reportedly jealous when she began dating, leaving him behind (Seagoe, 1975).

Despite this comical hiccup, Terman recounted a physically and emotionally healthy childhood (1930). He had the usual childhood ailments and initially avoided serious conditions like scarlet fever and tuberculosis, both of which had claimed several of his older siblings' lives (Seagoe, 1975). The Terman home was a happy place with the children playing games, working, and impersonating Johnson County's residents. Lewis also played with local boys, though his small size made him a victim of occasional bullying. His red hair made him an especially alluring target (Seagoe, 1975). Perhaps this was why Terman remembered spending so much of his time playing alone (1930).

When he was five and a half years old, Terman enrolled in a oneroom school, greatly enhancing his educational wellbeing (Terman, 1930). It is unclear how extensively his parents and siblings educated him, but according to Seagoe, when Lewis began school, he could read at a 10yearold level (1975). In such a small school, the teachers quickly recognized his exceptionality. They promoted Lewis to the third grade and then again into even more challenging classes. The promotions seemed to have no negative impact on Lewis, who loved learning in nearly every subject (Terman, 1930). By age 12, Lewis completed the school's eighth and final grade and graduated to working with a plow team on his family's

farm. This labor displeased Terman, and he longed for more formal education. So, he began attending his older brother's school.

The brother was John, and he had attended college and become a teacher. Lewis seemed to have idealized John. He marveled at his level of education, his mental abilities, and his violin playing which Lewis futilely attempted to imitate (Seagoe, 1975). Lewis enrolled at John's school where he met Arthur Banta, a boy who would become an eminent biologist and geneticist. Banta is the first childhood friend that Lewis mentioned by name in his autobiography (1930), and Minton's biography of Terman portrayed them as quite fond of each other (1988). Lewis buttressed this social life with academic studies that prepared him to enter a normal school, an institution established in the early nineteenth century to train teachers (Seagoe, 1975). Terman's goal was to become a teacher in order to earn enough money to pay for additional schooling. By continuing his education, Lewis could eventually leave “the same fields, doing the same chores, and getting nowhere” and progress towards something more intellectual, something more exciting (Terman, 1930, p. 302).

New Beginnings: College, Family, and Tuberculosis

When he was 15, Lewis was ready to attend Central Normal College at Danville, but he lacked the tuition money (Terman, 1930). Terman's failure to sell a family horse made financial concerns even grimmer. Thankfully, John intervened, acquiring money for his younger brother (Seagoe, 1975). Lewis sporadically studied at Danville from 1892 to 1898. He earned three degrees from coursework in science, pedagogy, and the Classics. He had exceptional teachers who exposed him to a variety of thinkers, including Locke, Rousseau, Darwin, and Dewey. This intellectual opportunity stoked Terman's curiosity, spurring him to read other thinkers including Plato, Aristotle, and Hume.

When enrolled, Terman lived in a boarding house with fellow students and spent time spear fishing, rabbit hunting, bicycling, and conversing. While he was a student, he also worked as a teacher. For a time, he was even a high school principal. He also began dating Anna Minton, an 18yearold student at Danville and a public school teacher. Four years later, Lewis and Anna married and gave birth to their first child, Frederick. The baby's behavior helped convince Terman to study psychology in graduate

school (Terman, 1930). But despite this educational and personal progress, chance littered Terman's life with adversity.

Four months after his son's birth in 1900, Terman suffered a serious tuberculosis attack and was bedridden for several weeks. Tuberculosis is a bacterial disease that can lie dormant for years after or during infection (WHO, 2011). It can cause serious life threatening symptoms like fever and weight loss; as Terman experienced, it can spread to the lungs, causing severe respiratory complications (Tuberculosis, n.d.).

Terman had previously exhibited some tuberculosis symptoms like coughing up blood, but this second hemorrhaging was an entirely different matter. Tuberculosis was common in Terman's family, even killing his eldest sister when she was 22 (Seagoe, 1975). Terman was confined to bed for several weeks. As his fever and pain lessened, he started recovering with a strict regimen of walking, monitoring his vitals, and resting.

By spring 1901, this regimen had significantly improved Terman's health, and he planned on attending Indiana University to continue his studies (Minton, 1988). According to Seagoe (1975), a loan of $1,200 allowed Terman to support his family for two years and to enroll in courses. He completed a master's thesis on the psychology of leadership. He had initially planned to work as a principal to help pay off his debt, to support his growing family, and to save money for his future doctoral studies. But his family and teachers alike urged him to continue his education, and another loan of $1,200 was pieced together for him. He enrolled in Clark University's doctoral program, then the “American Mecca for aspiring young psychologists” (Terman, 1930, p. 313).

Graduate School and Employment

Terman found Clark to be a very informal, small school. It had little bureaucracy, few students, and even less formal evaluation (Terman, 1930). This simplicity, though, was a matter of school size, not quality. Students socialized and debated with one another, often challenging the faculty as well. Among those students who overlapped with Terman during his period at Clark were Edward Conradi, E. B. Huey, Fred Kuhlmann, and Arnold Gesell. G. Stanley Hall, Clark's president, also served as Terman's mentor. Hall, a pioneering American psychologist, had studied under William James and became the first president of the American Psychological Association

(Terman, 1930). Terman's fellow students and mentors helped to produce a lively, invigorating ambience that Terman loved.

In his individual studies, Terman began reading Thorndike and Spearman's work on measurement and intelligence. He also started writing his dissertation entitled “Genius and Stupidity: A Study of Some of the Intellectual Processes of Seven ‘Bright’ and Seven ‘Stupid’ Boys.” Terman initially received ardent resistance from Hall regarding his dissertation topic and experienced “a heavy soulstruggle to desert him in favor of Sanford as my mentor” (Terman, 1930, p. 311). Edmund Sanford, a respected psychologist in his own right, had studied under Hall at John Hopkins and moved to Clark with Hall. Terman eventually received Hall's support and “[he] gave me his blessing and some advice on the danger of being misled by the quasiexactness of quantitative methods” (Terman, 1930, p. 311).

Independently, Terman had chosen the topic, created the tests, and recorded the results. He used 8 batteries of psychometric instruments to measure a total of 24 boys. This process took six hours a day for five months. The results helped convince Terman that heredity predominantly influenced people's intelligence levels. His oral defense lasted for four hours, including a five-minute period of silence after Terman admitted that he could not answer a question about St. Thomas (Seagoe, 1975). At the end, though, Terman received the prestigious title of Ph.D. and the unprestigious title of “unemployed.”

So, Terman looked for work. He desperately needed a job to support his family and pay off his student debt. Terman also had to consider his health, as he had experienced a third respiratory hemorrhage during his first year at Clark (Terman, 1930). The ordeal was more scary than serious. But Terman was increasingly anxious about his condition, occasionally waking in the middle of the night, dreading a “premature death [that] was a nightmarish specter that haunted me [Terman] for years” (Seagoe, 1975, p. 239). Finally, Terman received a lucrative job offer as a principal in Southern California, a dry climate beneficial to his health.

Nevertheless, his tuberculosis was not so easily abated, and as a principal Terman had a severe hemorrhage that lasted for several minutes (Minton, 1988). Afterwards, Terman returned to his postattack regimen and gradually healed. As his health became robust, Terman became increasingly unsatisfied with his administrative work. He wrote to a friend, saying that it was difficult “to engage in a line of work where your heart is not” (Minton,

1988, p. 32). Luckily, Lewis soon accepted an academic job with the Los Angeles Normal School, which eventually became UCLA (Seagoe, 1975). In California, he lived leisurely, “try[ing] to forget that [he] was ever interested in research” (Terman, 1930, p. 322).

In 1910, Stanford's Department of Education offered Terman a position (Terman, 1930). Terman gleefully accepted the position with the then 19-year-old university. The university had been established in 1891 when former United States Senator and California Governor Leland Stanford and his wife dedicated it to the memory of their only child, who had died of typhoid fever (Stanford University, n.d.). Terman and his family fit well into this new academic community. He was considered kind and thoughtful (Seagoe, 1975). Terman's closest friend was Professor Jesse Spears, and their families often dined and played together. The Termans felt so comfortable at Stanford that they built a two-story house on a 1.3-acre lot on the campus.

Terman, who always donned glasses and usually wore a sand or gray colored suit to work, was also becoming professionally comfortable (Seagoe, 1975). He only taught about eight hours a week and devoted the rest of his time to researching school hygiene and mental testing (Minton, 1988). Because of this work in psychometrics, the United States military invited Terman to help them develop cognitive tests for World War I (Kelves, 1968). The army needed an efficient way to identify their recruits’ abilities, so they enlisted psychologists to devise group intelligence tests. Terman enjoyed working with like-minded psychologists, including Guy Whipple, Henry Goddard, and Robert Yerkes, and the experience assuaged his worry that few cared about his work (Terman, 1930). The experience also strengthened his belief that intelligence could be accurately measured (Minton, 1988).

A Productive Career, A Destructive Retirement

After the war, Terman returned to Stanford. In 1922, he transferred to the Psychology Department, becoming its head. He would remain there for 20 years until his retirement in 1942 (Minton, 1988). During this period, Lewis conducted the lion's share of his work on the gifted, including his magnum opus, the *Genetic Studies of Genius*. The *Studies* is the oldest, most continuous longitudinal study in the social sciences (Leslie, 2000). The

project was a longitudinal study of approximately 1,500 gifted children. During the course of the study, Terman became very fond of his participants, colloquially calling them “Termites” and bragging about their achievements (1926). He helped those in need, giving advice and money and even helping a few gain admission to Stanford (Leslie, 2000).

Terman's favor towards the gifted was not allinclusive. He felt that his study demonstrated that some ethnic groups and women were intellectually inferior to other groups: “The racial stock most prolific of gifted children are those from northern and western Europe, and the Jewish. The least prolific are the Mediterranean races, the Mexicans, and the Negroes” (Terman, 1924, p. 363). Terman acknowledged noteworthy minority Termites but considered them exceptions rather than the rule (Jolly, 2008). Terman argued that these group differences were mostly genetic in nature, and he did not think that schools could do much to help these groups. This position is not widely accepted today, and some (Gould, 1981) have argued that Terman's views made it harder to justify improved educational programs for marginalized groups.

As his life continued, Terman kept researching gifted children, measurement, and corresponding with friends and former graduate students. When he retired, he donated his extensive library to Joint University Libraries in Nashville and moved into a new office to continue his longitudinal study. Terman had watched his children grow up. Fred was a gifted scientist who eventually became a provost at Stanford, while his daughter, Helen, became a teacher and housewife. Fred, along with the scientist William Shockley, helped found Silicon Valley, the California technology center (Keating, 2009).

Unfortunately, Terman's retirement was not without tragedy. In 1942 Terman was smoking in bed, fell asleep, and set the house ablaze (Minton, 1988). The house was badly damaged, but not as severely as Lewis. He suffered seconddegree burns on his back, right leg, and right arm. The damage was so severe that Terman had to undergo a series of skin grafts and could not walk for over a year. When he finally returned home, crippling arthritis and other ailments made everyday activities painful. Anna noted that her once optimistic husband had become much more dour and discouraged. By 1946, he experienced the additional hardships of cataract surgery and a broken hip. Terman did intermittently return to work, helping to write the fifth volume of the *Genetic Studies of Genius: The*

Gifted Group at MidLife (1959). It was his last major contribution to gifted education.

Terman's Research and this Chapter

This chapter has so far attempted to do Lewis Terman's biography justice. A major part of Terman's life, though, was his work in gifted studies. Some of Terman's most significant contributions to the field are detailed below, including his longitudinal study, his impact on gifted education, and his ideas about the relationship between intelligence and social efficiency. However, other contributions are omitted, like Terman's work on IQ tests and his pioneering work with longitudinal studies. These omissions are unfortunate, but the chapter provided only so much space. Readers interested in these omitted subjects might consider Chapman's *Schools as Sorters: Lewis M. Terman, Applied Psychology, and the Intelligence Testing Movement, 1890–1930* (1988) for further reading.

Terman, Father of Gifted Education

It is ironic that a man fixated with quantification would make an unquantifiably large contribution to gifted education. Yet, Terman did precisely this. His influence has transcended generations of researchers, practitioners, and students. Despite this legacy, many have hastened to vilify him. His views on intelligence, his involvement in the eugenics movement, and his sexism and racism are all submitted as evidence. And there is validity in each of these critiques, giving modern scholars reason to question the merit of Terman's scholarly contributions and personal beliefs. Still Terman's landmark longitudinal study was and is a crucial cornerstone of gifted education's foundation. It established him as a pioneer in the field, even earning him the title, the “father of gifted education.”

Some would dispute this, arguing that Galton is the father of gifted education (see VanTasselBaska's chapter in this book). This is a fair point. We would argue that Galton is not the father but the grandfather of gifted education. Galton laid the foundation, but Terman built the house.

Galton's contributions were not lost on Terman or his fellow pioneers. Terman and Leta Hollingworth (perhaps the mother of gifted education?) repeatedly cited Galton as the catalyst for the formal study of giftedness

(Jolly, 2004). Terman even wrote an article extolling Galton's prodigious talent and genius (Terman, 1917).

But Terman's approach to highly intelligent persons, particularly children, was significantly different from Galton and other predecessors. Terman was innovative, not only in terms of content but also in terms of his methodology. He was among the first researchers to apply psychology's new scientific method to gifted studies (Asher, 2003). Terman's methodology stressed efficiency, something that he could achieve through the observance of mental hygiene testing and measurement (Terman, 1915). Educators could then use his results to provide more appropriately challenging schooling choices for students.

Another result of this research was that Terman dispelled the mythology and folklore surrounding gifted children. During the nineteenth and early twentieth centuries, many regarded gifted children as oddities. They were unnaturally sickly, weak individuals, even mentally unstable. Many believed genius was more like a curse than a gift; it was a peculiarity worth noticing, not a talent worth nurturing (Terman, 1915).

Cesare Lombroso's work epitomizes this established mythologized view of gifted children. Lombroso's *The Man of Genius*, specifically the chapter "Genius and Insanity," focused on a collection of men of genius who exhibited mental illnesses. Lombroso included Isaac Newton, JeanJacques Rousseau, Arthur Schopenhauer, and Robert Schumann in his sample. Lombroso proposed a link between genius and neurosis, and the idea found a receptive audience among the general public and educators (Hollingworth, 1926; Lombroso, 1901; Terman, 1922). Ultimately, this belief evolved into gifted children being characterized as antisocial, unbalanced, and neurotic.

Terman abhorred Lombroso's work and conclusions (Cox, 1926; Terman, 1922, 1924, 1925). He thought that Lombroso's research methodology was "impressionistic and anecdotal," an amateurish process that sought "striking cases, which would lend support to a preconceived theory" (Terman, 1922, p. 310). Lombroso then argued that these selected cases demonstrated that genius and insanity were intertwined. Terman argued that he selected his cases with bias and ignored examples that failed to support his theory (Cox, 1926). Basically, Lombroso only had eyes for data that confirmed ideas he already held.

This substandard methodology and its findings, Terman felt, impeded the education of gifted children:

> Another circumstance that has blocked the educational progress of gifted children is the superstition given currency by Lombroso and others, that intellectual property is pathological; that bright children are prone to die young, become insane, or develop postadolescent stupidity. So thoroughly has this superstition become imbedded in popular thought that even prominent educators are likely to assume that the child of high intelligence quotient must, *ipso facto*, be anemic, nervous, conceited, eccentric, nonsocial, and a stranger to play. (1924, p. 360)

Terman worked to counter these harmful beliefs. He wanted to demystify intelligence, show that it was not associated with neuroses or poor health, and demonstrate that gifted children deserved respect, not voyeurism. To do this, he conducted a longitudinal study of over 1,500 gifted children.

Genetic Studies of Genius

Shortly after his arrival at Stanford in 1910, Terman conducted several case studies of gifted children. A $20,000 grant from the Commonwealth Fund allowed Terman to expand this research to over 1,000 subjects. In his grant application, Terman outlined the methodology. This included the increase of subjects, the administration of two intelligence tests to each subject, the collection of achievement data in four to five content areas, the administration of specialized tests, the revision of data collection methods, and the follow up of subjects over a 10year period (Terman, 1930).

The basic purpose of this research was to determine to what degree the intellectually gifted child varied from the average child. Terman studied multiple areas where differences might emerge: (a) the physical endowment of gifted children, (b) hereditary characteristics, (c) advanced abilities in academics, sports, and hobbies, (d) tests that identify advanced abilities, and (e) social and emotional issues (Unknown correspondent, 1921). In 1922, the Commonwealth Fund awarded an additional $14,000 to collect supplementary anthropometric, medical, and psychological data. Stanford University matched these funds (Terman, 1925).

By 1924, Terman had surpassed his original goal of 1,000 subjects with 1,400 and several control groups of 600 to 800 children. Terman's research assistants (several of whom would go on to have notable careers, e.g. Florence Goodenough, Catharine Cox) combed California's public schools, searching for profoundly gifted children. Initially they used teacher recommendations and test scores to evaluate potential participants. The identified subjects scored an IQ of 140 or above and resided in the Bay Area near Stanford (Terman, 1925).

In 1927, the Commonwealth Fund awarded Terman an additional $10,800 to address two objectives: (a) to confirm conclusions made during the first round of data collection and (b) to obtain additional data points in order to present a more holistic representation of gifted youth. Terman used intelligence tests to investigate these objectives and address three research questions: (a) How stable is intelligence over time? (b) Do extreme positive or negative changes in intelligence occur over time? and (c) What are the gender differences in regards to the first two questions? (Burks, Jensen, & Terman, 1930).

The unparalleled quantity of information gathered by Terman helped him draw a scientific portrait of gifted children that could help initiate educational reform. This portrait highlighted the differences between gifted and normal children. It was also more empirical, helping to end the misconceptions about gifted children (i.e. weak, sickly, unattractive, and awkward).

His portrait of gifted children included a sample of children who were predominately White from mostly Scottish and Jewish ancestry. California's Mexican, African American, Italian, Japanese and Portuguese populations were sparsely represented in Terman's sample (Terman, 1925). The majority of the gifted children's fathers held professional jobs with very few in occupations of semiskilled or unskilled labor. Terman linked the high correlation of adult achievement to childhood exceptionality, leading him to conclude that “the causal factor [for individual differences] lies in original endowment rather than in environmental influences” (Terman, 1925, p. 66).

Families were middle to upper middle class. Research assistants rated their home environments according to necessities present, neatness, size, parental conditions, and parental supervision. Few families were very rich or poor. The average parent had graduated high school, and 25% of the gifted students had at least one parent who had graduated from college. On

average, these parents completed twice as much schooling as the average adult (Terman, 1925).

Terman collected more than just ethnic, home life, and socioeconomic status data. He also collected medical data to thwart claims that gifted children were sickly. To do this, he charged Drs. Moore and Bronson with collecting medical information on the gifted subjects. The two doctors concluded that the gifted children were healthier than their age peers from the general population (Terman, 1925). Dr. Moore stated,

> … there is a direct correlation between physical health and mentality in children when studied in groups. In my opinion the physical superiority of the gifted group is indicated by the high average of nutrition and superior stability, physical and mental. (as cited in Terman, 1925, p. 251)

These results led Albert Hastrorf, the third director of the Terman's longitudinal study, to note that "He [Terman] established the fact that bright people are normal people" (as cited in Leslie, 2000, para. 24).

Terman continued to study and report on these children as they moved into adolescence, adulthood, and middle age. Terman felt "the study of these children and observance of their later careers, extending into maturity, are expected to throw useful light upon … whether it [superior ability] is permanent or ephemeral" (Correspondent, 1921, p. 694). The five volumes of *Genetic Studies of Genius* provided meticulous data collected every 5 to 10 years on the following categories: physical health, mental health, educational histories, occupational status and income, political and social attitudes, and marital status and children.

As noted earlier, this work continued for many years, spawning more volumes of *Genetic Studies of Genius* in the process. These data also proved useful to researchers who succeeded Terman. Some have used Terman's studies to analyze how much a high child IQ predicted adult success (Simonton, 1994). Other researchers studied how gradeskipping impacted the Termites' educational and personal lives (Cronbach, 1996), and others have shifted focus from the Termites to the actual researchers, looking at the female assistants' lives and careers (Rogers, 1991; see Robinson and Simonton chapter in this book). Terman's longitudinal study even appeared

in the popular press and was prominently discussed in Malcolm Gladwell's bestseller *Outliers* (2008).

Efficiency and IQ

Terman's work with psychometrics began early in his career, with his dissertation, “Genius and Stupidity: A Study of Some of the Intellectual Processes of Seven ‘Bright’ and Seven ‘Stupid’ Boys” (1906 *)*. At that time, psychologists did not fully understand the spectrum of individual differences (Terman, 1906). Within the decade, Terman not only solidified his interest in the measurement of intelligence, but he was also able to provide a succinct numerical value of intelligence that policy makers and the general public could understand.

From that time forward, his development of the StanfordBinet intelligence test and Terman's longitudinal study of gifted children would be inextricably intertwined. The identification and selection of children for his longitudinal study provided largescale support for the validity and reliability of the StanfordBinet and “was a logical outgrowth of [his] earlier studies in the field of mental testing” (Terman & Oden, 1947, p. ix). This IQcentric definition of giftedness has persisted as a method of identifying gifted and talented students. Terman believed that IQ, particularly superior levels, could predict superior achievement later on in life (Terman & Oden, 1947).

IQ was indispensible. There was “nothing else about a child as important as the IQ” as it allowed educators and parents to establish the trajectory of a young person's education and future career (Terman, 1920, p. 30). Terman believed “knowledge of mental growth is bound to be of great practical significance for education” (Terman, 1921, p. 325). Even before beginning his groundbreaking longitudinal study, Terman had concluded that the brightest children often achieved “in spite of the school” (1915, p. 536). Rather than “lifelong habits of submaximum [sic] efficiency,” the possibilities for achievement could be expanded exponentially if appropriate provisions in school were provided (Terman, 1915, p. 536).

Terman devised the progress quotient (P.Q.). This measure compared a child's potential scholastic ability against his or her actual scholastic achievement. By his estimation, at age 9 gifted children were retarded three grades, and by age 12 this had expanded to four grades. By calculating

mental age, a discrepancy of 2.8 years was formed for first graders when compared to chronological peers, and by fifth grade this discrepancy grew to approximately 5 years (Terman, 1925).

Terman made few comments about actual educational practices. He foresaw the StanfordBinet as a tool for educational efficiency and that test results could be used to inform classroom practices. His research informed pedagogy, arguing that instruction be tailored to the unique needs of gifted students (Terman, 1939). This reformed pedagogy was in addition to the commonly used grade acceleration. Terman felt grade acceleration, though effective, should not be the only option available. Even with the average grade promotion being two years, this practice still left many gifted children "underpromoted," causing them not to reach their potential (Terman, 1915, 1919).

Terman recommended "opportunity classes," similar to contemporary selfcontained classrooms (Terman, 1924). Lulu Stedman originally developed the opportunity class in 1918 at Los Angeles State Normal School (Stedman, 1919, 1924). Hollingworth cited the Stedman text as one of the foundations of her chapter on "Organization and Curriculum" in *Gifted Education* (Jolly, 2004), and Terman served as editor on her text, *Education of Gifted Children* (Stedman, 1924). Students of similar achievement and age filled these classes. The curricula was enriched and rapidly covered. This provided gifted students with increased stimulation and competition.

If there were too few gifted students for an opportunity class, a teacher could structure one within a classroom. These would be similar to contemporary cluster groups. Terman felt, "These [students] could be instructed by the same teacher, but as separate classes making different progress and doing work of somewhat different quality" (Terman, 1919, p. 266).

Terman's Influence on Modern Day Gifted Education

Terman's work on gifted children is considered pioneering. Unfortunately, pioneers often explore unchartered territory where it is easy to get lost. They unknowingly create and perpetuate flawed maps, flawed ideas. Sometimes these flaws are not apparent for many years and only then after much refinement.

Contemporary researchers who harshly judge Terman have had almost a century of research and hindsight. Few of Terman's ideas are safe from their oftenmerited criticism. Terman, himself, acknowledged that his work had problems. He admitted that his longitudinal study was conducted “in a relatively unchartered field of an immature science” (Terman & Oden, 1947, p. 373). This caused him and his investigators to make mistakes, and the entire study had “many imperfections” (Terman & Oden, 1947, p. 373). But considering the methodologies and information known at the time, Terman felt the successes outweighed the limitations.

Some of the specific critiques that contemporary researchers levy on Terman are: his overreliance on genetic factors to account for intelligence; his failure to experimentally control for socioeconomic status, race, and other variables; his belief that intelligence could be so accurately quantified; and his belief in a flawed, IQcentric definition of giftedness (Davis & Rimm, 2004; Feldhusen, 2003; Robinson & Clinkenbeard, 1998). Even his seminal work's title, *Genetic Study of Geniuses*, was arguably incorrect, as he did not study geniuses, but *potential* geniuses. And most of these potential geniuses never achieved eminence in adulthood (Keating, 1991).

Despite these deficiencies in Terman's research, his legacy to gifted education remains indelible. His longitudinal study brought unparalleled attention to gifted children and their educational needs (Crosby & Hastorf, 2000). His definition of giftedness focusing on IQ remained relevant until the 1970s when a federal definition of giftedness was issued with the Marland Report, and a more inclusive array of behaviors and characteristics was included. Terman also advocated for both enrichment and acceleration for gifted children and argued that their education needed to be qualitatively different from the norm. These practices are reflected in many gifted classrooms across the United States (Jolly, 2004). Where they are absent, gifted children's education is wanting.

Conclusion: True Greatness

When Lewis Terman died in 1956, an obituary noted that “there is precious little known about the gifted that was not discovered by Lewis Terman” (Sears, Farnsworth, McNemar, & Wallin, 1957, p. 2). Though modern research has disputed many of Terman's beliefs, his work on standardized

tests is routinely used by practitioners. His work on the g ifted, particularly his *Genetic Studies of Genius*, is routinely cited by researchers. Even more importantly, Lewis was an undeniably persistent, intelligent, and brave man who overcame serious health problems early and often in his life. Despite his tuberculosis and his oftenunfulfilling work, he always worked hard to better his and his family's fortunes. As a result, not only did he become one of the most influential educational psychologists of the twentieth century, but he also supported his graduate students and his research subjects, worked amiably with his colleagues, and loved his family. This sort of happy social and family life was probably not the kind of greatness that the book salesman prophesized for young Lewis, but then again, phrenology is hardly an exact science.

Terman's Archival Collection

Terman's papers are held by the Department of Special Collections and University Archives at Stanford University. Thirtyseven linear feet chronicle his life's work from 1910 to 1959. The second author of this chapter made two visits to the archives in order to access primary resources and gain a better understanding of Terman's work. His papers include a significant number of correspondences between Terman and his former graduate students and those in the psychological and gifted education communities scattered across the country. They also reflect the social context of each successive decade. The documents found in the archive complement the vast corpus of Terman's published research and create a more holistic picture of a man and his studies.

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7

LETA STETTER HOLLINGWORTH

A Life in Schools (1886–1939)

Holly Hertberg-Davis

Introduction

> "Let us say the truth, by all means, and if we do not like to say the truth as it stands, then let us make the truth something we can like to say"
>
> —Leta Stetter Hollingworth, 1908
> (as cited in Hollingworth, 1943, p. 66)

For a woman known and remembered variously for her "eloquent insistence on cogent proof" (Hollingworth, 1943, p. 157), her "decisions and opinions … based on cold facts" (Gates, 1940, p. 10), and "the no-nonsense, analytical workings of her intelligence" (Borland, 1990, p. 163), Leta Stetter Hollingworth's life was full of poetry. Much has been made of Leta Hollingworth's poem, "Lone Pine," written and published in the local paper when she was only 14, because of what it reveals about the author's precocity and depth of thought, because of the clear insight it provides into her diffi cult and lonely childhood, and because of its clear ties to Leta's later passion, the study and nurture of highly intelligent children who, Leta recognized, often felt, as she must have, like the lone pine of the poem.

Lone Pine
High up, on the peak of the hill-top
Where the tempests meet in strife,

Thro' the night and the storm and the darkness
It stands like a lonesome life.

Beaten and scarred and crippled,
By the winds and the rain made old,
While the pine trees down in the valley
Are sheltered from storm and cold.

… Silent and uncomplaining,
Except when the sad winds moan
Thro' its broken and battered branches,
The tale of a life, alone.

… And the Lone Pine standing patient,
Where the wild winds wage their strife,
Beaten and scarred and crippled,
Like a broken, lonely life,

Is telling again the story,
As the winds thro' its branches moan,
Of a soul lifted high o'er its brothers
That must bear the storm alone.

—(Hollingworth, 1940a, p. 7)

Throughout her too-short life, Leta wrote poetry. She was Class Poet of the Class of 1906 at the University of Nebraska; her poem, "Always and Forever Roses Die," was read at the commencement ceremony (Hollingworth, 1943, p. 41). Her poems, written both in her youth and after her marriage, were collected and organized into a volume by her husband, Harry Hollingworth, "privately printed for circulation among friends who most cherished the personality and the insight of Leta Stetter Hollingworth" (Hollingworth, 1940b, p. vii).

While Harry did publish her poems and public addresses after her death, he destroyed all of her letters to him and gave away many of her papers which were then lost (Klein, 2002). He chose not to discuss their personal affairs in his biography of her life: "This half of the story shall remain our

secret" (Hollingworth, 1943, p. 158). Consequently, Leta's poems provide some of the only existing insight into her private life and imagination and create a rich portrait of a woman highly attuned to beauty and emotion, a surprising contrast to the relentlessly logical tone of her scholarly writings.

Leta's life was bookended by poetry. In her fi nal days, as in her childhood, poetry provided her with solace as she battled the disease that she knew would eventually end her life. Her husband wrote,

> During the last year of her life she was observed to spend more than the usual amount of her leisure moments, often in the evening, reading poetry. She was seen occasionally to mark the pages of these books, and after the last tragic day these acts were remembered, and the books examined. Some of the poems were marked with a bright red circle. (Hollingworth, 1943, p. 151)

One of the poems that Leta had circled, Sara Teasdale's "Beautiful, Proud Sea," was read at her funeral. It calls to mind the lone pine of Leta's poem, still alone but now not lonely, transformed with age and time into an endless and immortal sea:

Careless forever, beautiful proud sea,
You laugh in happy thunder all alone,
You fold upon yourself, you dance your dance
Impartially on drift-weed, sand or stone.

You make us believe that we can outlive death,
You make us for an instant, for your sake,
Burn, like stretched silver of a wave,
Not breaking, but about to break.

—(1926, p. 4)

The contrast of these two poems—the one that she wrote as a child, and the one that was read at her funeral—provides an apt metaphor for Leta's life: a journey of healing, of triumph, of a transformation from a "broken, lonely life," standing "silent" and still "thro' the night and the storm and the darkness," to a "beautiful proud sea" that "laughs in happy thunder" like the "stretched silver of a wave."

A Cinderella Story

Leta's birthplace, as described in the biography her husband, Harry L. Hollingworth, wrote four years after her death, was a desolate place: “The sandhills stretched for miles in any direction…. there were no trees except a few cottonwoods along the streams. To the north lay the Black Hills and the Bad Lands. To the south was a vast and relatively unfrequented stretch of the state of Nebraska, mainly desert” (Hollingworth, 1943, p. 1). It was in this lonely and stark setting near the pioneer town of Chadron, Nebraska, that Leta was born on May 26, 1886, in a dugout on her maternal grandparents' homestead (Hollingworth, 1937). Leta's parents, John (known to his family and friends as “Johnnie”) G. Stetter and Margaret (“Maggie”) Elinor Danley, were an unlikely pair: she was gentle and refi ned, while Johnnie was wilder and rougher (Hollingworth, 1943, p. 13).

According to nearly every source, Johnnie was “garrulous and friendly … sociable, full of the joy of life” (Hollingworth, 1943, p. 11); Grant Shumway, author of *History of Western Nebraska and its People* (1921), who knew Johnnie personally, wrote of him: “Give Johnnie Stetter a good cigar and a half Nelson on your time and he will keep you interested for many hours” (p. 556). But Johnnie was also irresponsible, restless, and compulsively aimless. He often left his family for long stretches of time, even while Leta's mother was in the final stages of pregnancy, not showing up to see his newborn daughter until she was eight days old (Hollingworth, 1943). He remained, until Leta's death, a restless spirit and source of concern for her.

Fortunately for Leta, her mother, Maggie, was a much more stable and steady parent who doted on Leta during her early years. She chronicled the first year of Leta's life in a “small red leather-bound notebook … [a] well-bound, gold-edged book” (Hollingworth, 1943, p. 15). The account was lively and written in the first person, as though baby Leta herself were the author, and is particularly poignant given the fact that the woman writing it would never see the baby she clearly loved so deeply celebrate her fourth birthday. The charming baby book is one of the only remaining records of Leta's mother's life, and, like Leta's poems, provides a clear picture of the woman Maggie must have been. The contrast between Maggie's light, humorous, and elegant writing and the rough sod walls of the dugout surrounding her as she wrote brings into sharp focus a loving and highly

intelligent woman making the best of a difficult situation and hints at the possible source of Leta's talent with words and her resilience. This quick wit in the face of hardship indeed seemed to be a family trait. Leta's uncle, William Danley, wrote of those years on the Danley homestead: “Am here yet on my Homestead, with Pa, Ma, Maggie, Leta, & Warren. I am running the Chadron Dairy have 20 cows 7 horses, 2 pigs a Dog and an awful cold” (Danley, 1888, p.1).

Leta's time with her mother was short. When Leta's mother died of complications from childbirth on February 9, 1890, Leta was three, her sister Ruth was two, and her youngest sister, Margaret, was one day old. For the next nine years, the three girls lived with their maternal grandparents, the Danleys, first in Dawes County, Nebraska, and then in Colorado, their father visiting only sporadically (Klein, 2002). From the time that Leta was 6 until she was 10, she attended a one-room log schoolhouse which she remembered in later years as “excellent in every respect. We had small classes (twelve pupils, in all), all nature for a laboratory, and individualized instruction” (Hollingworth, 1937, p. 33).

Even then, as a little girl in a dusty pioneer town, Leta had lofty aspirations presaging her future eminence. In a letter to Leta on March 16, 1924, her uncle, William Danley, wrote, “I have been intending to write and thank you for THAT BOOK. It certainly is interesting, and I remember so well when you was [sic] about three feet tall out on White River how you used to talk about writing a BOOK” (cited in Hollingworth, 1943, p. 27). One can almost picture her, a small, determined child, standing in the river, the rough prairie stretching limitless around her, dreaming of becoming a writer. While there were certainly hardships during the years Leta lived with her grandparents—including the death by fire of two of her young cousins and the loss of the family homestead—Leta always remembered the Danleys as good and generous people, dedicating THAT BOOK she promised her uncle—one of eight that she ultimately wrote—to their memory.

However, those nine years under the warm care of her grandparents came to an abrupt end when, in 1898, Leta and her sisters moved to Valentine, Nebraska, to live with their father and his new wife, Fanny Berling Stetter. The girls' life with their father and stepmother reads like *Cinderella*. Fanny took an immediate and violent dislike to her new husband's family, including his daughters, subjecting them to constant emotional and perhaps

physical abuse (Hollingworth, 1943) and treating them, for the years they lived with her, like servants. In a letter to Harry dated January 7, 1908, Leta recollected of her stepmother:

> We girls worked every minute we were not in school, getting up every morning at five o'clock and doing everything we could before school time, doing the heavy sweeping on Saturdays and the baking on Sundays. The washing and ironing was practically the only piece of work that was left for someone else. (Hollingworth, 1943, p. 28).

Despite the traumas and privations of Leta's early life, or perhaps in part *because* of them, Leta was a successful student. She later told her husband in a letter that she "went to school daily … and worked like the Dickens" in order to escape the life she was living (Hollingworth, 1943, p. 31). Her efforts paid off: Leta graduated from Valentine High School along with seven other students on May 23, 1902, two days before her 16th birthday.

She matriculated at the University of Nebraska in the fall of that year, 200 miles from her home. She found her new surroundings invigorating, immersing herself in numerous intellectual and social activities, holding positions of responsibility in many of them. Predictably, Leta's primary interest in college was writing: she majored in English, was literary editor for the *Daily Nebraskan*, associate editor of *The Sombrero*, assistant editor of *The Senior Book*, and was chosen Class Poet (Hollingworth, 1943). On June 14, 1906, Leta graduated from the University of Nebraska with a B.A. and a State Teacher's Certificate (Hollingworth, 1943).

That Leta attended and graduated from college at all, given her unusually rough life circumstances and the extremely low college attendance and even lower college graduation rates in the country at that time, is admirable enough. But what she accomplished during her 33 ensuing years when women were actively excluded from the halls of higher education—the Ph.D., the rise to a full professorship at Columbia, the research and writing that laid the foundation for an entire educational field that still credits her as its "nurturant mother" (Stanley, 1978), the career that led to a nomination in 2012 for inclusion in the Nebraska Hall of Fame (Nebraska Hall of Fame Commission, Nov 16, 2012)—is nothing short of amazing.

Starting Out

A month before she graduated from college, Leta signed a contract to serve as the assistant principal of the high school in DeWitt, Nebraska (Hollingworth, 1943). Her duties included teaching seven 45-minute periods of English, Latin, German, history, physiology, civics, and botany each day, along with performing repair work and janitorial duties (Hollingworth, 1943). She found her "*wretchedly prepared*" students uninspiring and disliked having to teach outside of the disciplines for which she felt prepared (Hollingworth, 1943, p. 56). Leta honored her contract, but at the end of the year she accepted a higher-paying position teaching only English and German in a more progressive high school in Mc-Cook, Nebraska. Comparing the two locales, Leta wrote to Harry, "DeWitt was hopelessly static, finished, done with; McCook is young, vigorous, adolescent, growing, dynamic in every way … In short, I like the place" [letter to Harry dated September 16, 1907] (as cited in Hollingworth, 1943, p. 57).

Leta's letters from her time as a young teacher in McCook also reveal the keen powers of observation that would serve her so well in her later career. Even a lazy afternoon spent reading at the library became an opportunity for Leta to observe carefully the human behavior around her and record it with the grace of a novelist:

> As I write the afternoon sun strikes through the high west windows, and lies in long light across the study tables. Over on the other side of the room some fellows with green eye-shades are beginning to turn on the electric lights. Across the table here a Tri-Delt in a long brown veil is flirting with a smooth-browed freshman, and the girls at the Pi Phi table are surreptitiously passing a bag of salted peanuts around. [letter dated January 17, 1908] (as cited in Hollingworth, 1943, p. 67)

Leta remained happily in McCook for a year and a half; in the middle of her second year of teaching there, she resigned and left for New York City. There, on New Year's Eve, as the rest of the country was welcoming in 1909, she and Harry Hollingworth were married. Leta and Harry were, in many ways, perfect for each other. Both lost their mothers at very young ages—Harry at 16 months, Leta at 3 years—and both lived in families that struggled with poverty (Hollingworth, 1943). Both were unusually intelligent and hard-working. Their later career interests dove-tailed

perfectly. As Harry wrote in his 1940 memoir, "Years at Columbia," "Our two lives were as closely integrated as the frailties of human nature make possible" (as cited in Barton, 2011).

Despite the couple's apparent compatibility, their early married years were difficult ones for Leta. She had come to New York with hopes of continuing her teaching career, but she found, upon applying for jobs, that married women were not hired to teach in New York City public schools (Hollingworth, 1943). Left without an occupation, she attempted to busy herself with domestic duties, but such occupations were not suited to Leta (Benjamin, 1990). As an article published in the *New York Times* in 1915 featuring Leta's work and life explained:

> Now, by all the accepted laws of society and of the fiction writers, [Leta] should have been perfectly happy. She had love, a cozy little home, and a husband whose career she was helping to advance. But she was not happy. As she swept and dusted and prepared meals and put the garbage off and on the dumb waiter, the thought that her husband was congenially employed teaching psychology was not enough to make this modern woman happy. It merely depressed her. (Dorr, September 19, 1915, p. 15)

To assuage her boredom and feel like a contributing member of the household, Leta made attempts at writing and publishing some short stories, but the ones she submitted were rejected (Hollingworth, 1943). She took occasional graduate courses in literature, but found them dissatisfying. She applied for scholarships and fellowships to study full-time, but was turned down for each one. It is no wonder that "once in a while she would unexpectedly and for no apparent cause burst into tears" (Hollingworth, 1943, p. 73).

However disappointing and dissatisfying this professionally dismal five-year period must have been for Leta, it was during this time that she developed an interest, stemming from her earlier teaching experience, in education and social maladjustment (Hollingworth, 1943), an interest which would in turn lead to her groundbreaking work in gifted education. She determined to leave literature behind and instead focus on education and sociology when she and Harry could afford for her to pursue graduate work. In the meantime, she waited.

Starting Over

The end to Leta's latent period finally came in 1911 in the shape of a Coca-Cola bottle. The Coca-Cola Company was at that time being sued by the Federal Government for violating the Pure Food and Drug Act of 1906. The contention was that caffeine was harmful and that Coca-Cola was marketed towards children (Benjamin, 2009a). Most of the prior research on the effects of caffeine had been conducted on animals; the Coca-Cola Company realized it needed research exploring caffeine's effect on humans before going to trial, hopefully with results favoring their product. Harry Hollingworth's mentor, Professor James McKeen Cattell, was contacted first by Coca-Cola to conduct the study, but Cattell declined on the grounds that it would be unethical (Benjamin, 2009b). Numerous other researchers refused for the same reason. But the Hollingworths' financial needs outweighed ethical considerations, and Harry agreed to undertake the project, immediately hiring Leta to run it (Benjamin, 2009b). In this role, she helped direct three separate and complex studies of the effects of caffeine. The Hollingworths' research team collected 76,000 measurements over the course of 40 days and found that the effects of caffeine on humans were minimal, particularly when ingested on a full stomach (Benjamin, 1990; Hollingworth, 1912). In the end, not only did this opportunity launch Leta's research career and provide valuable information to the scientific community, but it also provided the struggling couple enough money to send Leta to graduate school full-time at Columbia (Benjamin, 2009b). And, in the study's monograph, Harry was able to provide a more lofty rationale for undertaking the study than money alone: “To have refused this opportunity to make a useful contribution to knowledge … simply through fear of the suspicion of bias, would have been nothing less than an evasion of scientific duty” (Hollingworth, 1912, p. iv).

Even a quick glance at a timeline of Leta's ensuing career reveals how quickly she made up for the time lost during the latent period of her early marriage. She began her graduate studies during the 1911–1912 school year, receiving both her M.A. and her M.Ed. in June 1913 (Hollingworth, 1943). She continued to work toward her Ph.D., simultaneously taking on what was supposed to be a temporary, part-time position in the Department of Public Charities (Teachers College Public Relations Office, 1975). According to Harry, Leta's work there was so thorough and impressive that

when the employee whose place she was taking returned from sabbatical, another position was created so that Leta could be retained (Hollingworth, 1943). After scoring at the top of the list among psychologists on a competitive examination, Leta was appointed to the first position for a psychologist in the Civil Service in 1914. She remained at this position for a year, continuing to administer "mental tests" and was then transferred to the Psychopathic Service at Bellevue Hospital in 1916 (Teachers College Public Relations Office, 1975).

She quickly built such a strong reputation as a consulting psychologist that she developed a practice outside of the clinic through which she counseled individual children and adults (Hollingworth, 1943). Her husband reported, "I have estimated that she served as intimate psychologist adviser, during her lifetime, to at least four or five thousand distressed individuals" (Hollingworth, 1943, p. 77). She was as sought-after and successful in her clinical work as she was in her consulting work: when a psychological laboratory in Bellevue Hospital was established in 1916, Leta was invited to run it. Instead, Leta accepted a faculty position as Instructor of Educational Psychology at Teachers College (Teachers College Public Relations Office, 1975). She was made Assistant Professor in 1919, and promoted to Associate Professor in 1922. She remained on the faculty for 23 years until her death in 1939 (Teachers College Administration, 1940).

As if Leta were not busy enough with her Ph.D. studies and her rapidly bur-geoning career, she also published six scientific papers prior to receiving her Ph.D. in 1916. Her work focused primarily on refuting the *variability theory* (the then-popular theory that males displayed greater variability in intelligence than females and thus were more likely to be geniuses) and the idea of *functional periodicity* (the notion that women were incapacitated during menstruation), the latter of which became the topic of her doctoral dissertation study, which she defended successfully on May 13, 1916 (Hollingworth, 1943).

Although Leta showed continued interest in female psychology for the re-mainder of her career (Miller, 1990), her focused research and writing on this topic occurred primarily during her years as a graduate student, from 1912–1916. Her appointment to the faculty of Teachers College led her to shift the focus of her research agenda to the psychology of exceptional children—at first, the psychology of *subnormal* children, and eventually, the psychology of highly intelligent children. This shift began simply

enough: with the administration of a single IQ test to an exceptional young man (Hollingworth, 1942).

As a new instructor at Columbia, Leta taught a course on exceptional chil-dren focused primarily on students with IQs below 100. However, Leta felt it was important for her students to get a sense of the contrast provided by a child with a high IQ under testing conditions and asked her students to nominate a very intelligent child for the demonstration (Kearney, 1990). They nominated an eight-year-old boy who Leta referred to as "E." Despite the daunting 30-person audience staring at E as he took the test, "his mental age was found to be 15 years 7 months, yielding an IQ of 187" (Hollingworth, 1926, p. 237). Leta later recalled the impact E had on her, noting a fascination with the efficiency of his brain:

> I did not at that time have any expert knowledge of highly intelligent children … I had tested thousands of incompetent persons.… I perceived the clear and flawless working of his mind against a contrasting background of thousands of dull and foolish minds. It was an unforgettable observation. (Hollingworth, 1942, p. xii)

As she would with the 11 other children with IQs over 180 she studied, Leta delved into E's family and personal history and followed and recorded even the smallest of details of his progress over the course of nearly 25 years. Leta's recounting of the minute details of E's family history and her careful measurements of his development (for example, she notes that E "cut his first tooth at 8 months—a lateral incisor" [Hollingworth, 1942, p. 137]) exemplifies the painstaking research she conducted on the gifted students she studied. Clearly, Leta was fascinated by all aspects—biological, intellectual, physical, and emotional—of the highly intelligent child and wanted to study and record each and all of them carefully.

A Spectacle of Compelling Beauty

From 1913 when Leta's first article, "The Frequency of Amentia as Related to Sex," was published until her book, *Children of IQ Over 180*, was posthumously edited and published by her husband in 1942, Leta authored 8 books and over 70 articles and book chapters. Until 1922, Leta's work primarily concerned sex differences and women's issues (eight articles, one

book) and individuals with mental disabilities (four articles, one book). After 1922, her focus turned largely toward children with above-average IQs. Many of the analyses of Leta's contributions to the field of gifted education focus on her work in helping explore the physical and emotional characteristics of highly intelligent children. She was, indeed, interested in understanding even the smallest details concerning gifted students and added substantial empirical evidence to a new and emerging body of work refuting stereotypes of gifted students as unhealthy and physically underdeveloped: “It has been amply proven, by measurements, that highly intelligent children are tall, heavy, strong, healthy, and fine looking as a group, exceeding the generality of children in all these respects” (Hollingworth, 1942, p. 256).

Additionally, she provided a great deal of information about the little-studied population of students with extraordinarily high IQs, revealing not only their capacity for prodigious accomplishments, but also exploring the social difficulties that result from being constantly surrounded by age, but not intellectual, peers: “The majority of children above 160 IQ play little with other children because the difficulties of social contact are almost insurmountable” (Hollingworth, 1942, p. 302). She recommended that these children, along with their less prodigious, but still highly intelligent, peers be placed in separate classes where they could learn at their own, advanced pace with students intellectually similar to them (Hollingworth, 1942).

Leta's writings in the field of gifted education explored topics as diverse as “The Systematic Error of the Herring-Binet in Rating Gifted Children” (Hollingworth, 1930c) and “Playmates for the Gifted Child” (Hollingworth, 1930b). She published her work in the most respected peer-reviewed psychological journals as well as in popular women's magazines. Her steady stream of new research and ideas, and her ability to share it with a broad audience, helped to lay the foundation for the field's understanding of the needs and nature of academically gifted children and the types of learning experiences best suited to them.

But Leta's prolific publication history tells only a fraction of the story of her contributions to the field. It was her close, careful, and loving work with actual children in actual classrooms and schools that set her apart from many other researchers of her era and arguably our era as well. In his guest editorial for the special edition of *Roeper Review* dedicated to Leta's life and work, Harry Passow described Leta as,

> … a pioneer in the study and education of the gifted, an educator who was clearly not an ivory-tower researcher but one who pioneered research and development in naturalistic settings—in functioning classrooms and schools…. Her proposals for programs in New York City schools and her annual reports are especially interesting, considering that laboratory studies were so dominant in that era. (1990, p. 135)

Leta's work as a researcher was bound inextricably with her work as an educator; she studied highly intelligent students not only to find scientific answers to her questions or to promote her research agenda but also to make a real difference in the lives of the individual children involved in those investigations. She found gifted students fascinating; "A bright mind at work was to her a spectacle of compelling beauty" (Hollingworth, 1943, p. 119). In the introduction to *Children Above 180* IQ, Harry Hollingworth wrote that Leta

> … knew these cases intimately and at first hand. Some of them she had followed for as long as twenty years, taking a personal interest in the individual children and their problems, advising them, assisting them, continuously observing them, and frequently testing and measuring them. (Hollingworth, 1942, p. iv)

Her personal knowledge of her students allowed her insight into the nuances of their emotional lives, something that Terman's research failed to grasp.

For a person as deeply interested in and facile with measuring things as Leta was (she claimed that her family motto read, "I love to test" [Hollingworth, 1940b, p. 35]), she was surprisingly attached to the notion of the importance of the *individual* in the research process. As Fagan (1990) noted, Leta was dismayed by the increased use of group tests and "the practice of having assistants conduct work with children, separating the investigator completely from the child" (p. 160). Leta wrote, "The 'whole child' cannot be studied in absentia, nor, for that matter, can any part of him be studied" (as cited in Fagan, 1990, p. 160).

It makes sense, then, that most of the research that Leta conducted and wrote about occurred in naturalistic settings, through her case studies of

“genius” and in the classrooms of PS 165 and, later, the Speyer School. Leta's first experimental class for gifted learners, housed within New York City's PS 165, was a three-year study of gifted children. The class, created by Leta and colleagues from Teachers College and PS 165, was intended to remain together for three years and serve no less than 25 students. The design was to cover the entire curriculum presented to students in regular classrooms in half of the time, and to spend the other half of the time engaged in enrichment activities. According to Leta's husband, the purpose of the experiment was to

> study the children, in as many ways as possible … in general, to find out what kind of creatures bright children are, from where they come and to where they are going. The second aim was to experiment with curricula, projects and methods of instruction. (Hollingworth, 1943, pp. 116–117)

Fifty highly intelligent students were chosen to attend PS 165 and were separated into two classes: one class of 25 students with the highest IQs (median IQ 165) and one class of 25 students with high IQs (median IQ 146) (Klein, 2002). Forty of these students remained in the classes for all three years. Extensive data on these children were collected, yielding more than 30 journal articles on topics ranging from physical characteristics to social adjustment of highly intelligent students. A resulting study also provided evidence that gifted students learned the prescribed curriculum just as well when learning it in half the time as did their peers whose acquisition of the curriculum was not accelerated (Gray & Hollingworth, 1931).

Leta and her colleagues kept in close touch with many of these students well beyond the end of the three-year study period. Of the PS 165 students, Leta said,

> We watched them through high school, and then, fascinated with what we saw, we watched them through college; … these 56 youngsters were out of college and I was fixing to observe them, and them only, for the rest of my life. (Hollingworth, 1943, p. 126)

However, just as Leta was about to settle down and focus on this cadre of gifted children-turned-adults, the Director of Teachers College, Dr. Paul

Mort, approached Leta with a proposal to start a school for exceptional children. Initially she balked at the idea, telling her colleagues in a tongue-in-cheek public address that her

> frame of reference at the moment … was all set for spending the rest of my days in *restful* research with *adults* … my plan was to go right on for years with 56 charming *adults* who would show no further phases of child and adolescent behavior. Can you *blame* me? (Hollingworth, 1943, pp. 127–128)

Leta's enthusiasm for the project, however, soon took over, and she wrote to Dr. Mort shortly after hearing his proposal that it "seemed like the unexpected answer to fifteen years of prayer" (as cited in Klein, 2002, p. 139).

The Speyer School opened its doors in February 1936, serving nine classes of exceptional learners from both ends of the spectrum—seven classes were designated for students with learning delays, and two for gifted learners. Leta served as the educational adviser for the gifted classes, called "Terman classes" (Hollingworth, 1943). The school was slated to be a five-year experiment in educating exceptional learners in a homogeneous setting.

Fortunately, Leta had already worked extensively on appropriate learning experiences for gifted learners in PS 165, providing the basis for curricular units that she, her colleagues, and her students would further develop, field test, and ultimately publish through the Speyer School. Leta's beliefs about what and how elementary-aged gifted students should learn were firmly established by the time she started her work with Speyer.

The Evolution of Common Things

Leta knew from experiences working with gifted children, and perhaps from her own education, that the standard school fare was not a good fit for them: "With little to do, how can these children develop power of sustained effort, respect for the task, or habits of steady work?" (Hollingworth, 1942, p. 299). She argued that lack of academic challenge in early life could lead to a failure to develop crucial life skills, and therefore it was critical to

provide gifted students with appropriate learning experiences commensurate with their advanced academic abilities.

When Leta was working on developing appropriate educational experiences for gifted learners, acceleration was widely accepted as the primary approach to educating the gifted (Benbow, 1990; Harris, 1990). Leta believed that acceleration, or *rapid progress*, was appropriate for students older than 12, when differences in ages were not as conspicuous, but that it put young children in a very difficult position: "a child of eight years graded with 12-year-olds, is out of his element socially and physically, though able to do intellectual work as well as they can" (Hollingworth, 1926, p. 298). Additionally, Leta believed that until there was tight articulation between elementary and secondary schools, presenting elementary level students with accelerated curriculum only delayed their academic agony: "The subjects of study taught in high schools can be learned by very gifted children, when they are nine or ten years old. But what profit is to be found in having this done?" (Hollingworth, 1926, p. 312).

Instead of acceleration, Leta recommended a combination of rapid progress and *segregation (or special opportunity classes)* until age 12, when rapid progress could constitute the whole of the accommodations made for the gifted (Hollingworth, 1926). Within these special opportunity classes, Leta advocated for an enriched curriculum focused on developing, most critically, "initiative and originality" (Hollingworth, 1942, p. 290). In order to become effective original thinkers and creators, Leta believed, students needed a "sound and exhaustive knowledge of what the course of preceding events has been" (Hollingworth, 1942, p. 291).

Leta's beliefs about the necessity of providing a unique, challenging, and intellectually interesting curriculum for gifted students led her to coordinate the development and field testing of a series of, as she called them, *enrichment units* in the Speyer School. Leta's vision of how the development of these units would unfold reveals a great deal about her learner-centered philosophy of education— one which emphasized the importance of inquiry and the student as the driver of learning: "The handbooks, as they appear in published form, will represent the actual work of *the pupils themselves*, guided by the teacher.… The teachers did not discover and assemble the materials of instruction.… The children did this work" (Hollingworth, 1942, pp. 292–293; emphasis in the original).

In all, Leta planned for the development of four categories of enrichment units in the Speyer School: “The Evolution of Common Things,” “Biography,” “French Language and Literature,” and “The Science of Nutrition.” All were to be created following a similar five-year plan of development and field-testing in Speyer School classrooms (Hollingworth, 1942). Sadly, Leta would not live to see her vision come to full realization; she died a year before the study period was over. However, 14 “Evolution of Common Things” units were completed and published by the New York City Board of Education (Klein, 2002), providing other New York City teachers, along with teachers from countries as far away as South Africa and Bulgaria, with sample units to use in their own classrooms (Hollingworth, 1943). These units, and the curricular principles that underlie them, remain relevant today in their emphasis on both relevance to students' lives and academic rigor (Borland, 1990; Silverman, 1989).

While Leta did not live to see the long-term effects of her experiment, her work with PS 165 and the Speyer School continued to impact her students long after her death. In 1985, Tannenbaum and Harris conducted a follow-up study of the students who attended the Speyer School under Leta's direction. Sixty-four of the former students responded to questions concerning health, family, education, vocation/profession, avocation, achievement, and fulfillment. In general, the surveyed group seemed to enjoy relatively successful and fulfilled adulthoods (Harris, 1990). Of particular interest in the findings was the fact that many of the students had kept in touch with each other during the 30 years that had ensued since the Speyer School had closed its doors (Harris, 1990), a fact that undoubtedly would have brought Leta, with her ongoing concerns about the social isolation of the gifted, great joy. Similarly, White & Renzulli (1987) found in a follow-up study of 28 of the original 90 students who attended the Terman classes at the Speyer School that the opportunity to form friendships with peers of similar ability was of particular importance to them. One of the students participating in the study described the Speyer School as “one of the only native lands I've ever been lucky enough to live in” (White, 1990, p. 223).

The Two Sides of Leta's Legacy

During her 27 years as a researcher, Leta never received a single grant to support her work. She applied for them, but for whatever reason—her sex, the subject matter in which she was interested—was repeatedly turned down. Her cadre of pupils from PS 165 and the Speyer School became all the more critical to her as a research pool. In addition to the curriculum work she did in her schools, Leta's research on this pool of gifted pupils included numerous investigations in which she compared gifted to non-gifted students on non-intellective traits. She investigated the comparative attractiveness of gifted students' faces (Hollingworth, 1935); the comparative tapping rates of gifted vs. non-gifted students (Hollingworth & Monahan, 1926); how gifted students compared with *average* peers in jumping ability, chinning ability, and grip strength (Monahan & Hollingworth, 1927); and whether gifted students maintain their height superiority from childhood into adulthood (Hollingworth, 1930a). On nearly all of these measures, she found gifted students to be superior—and when they were equal or inferior, as noted by Margolin (1994), Leta showed that

> some of this apparent equality reveals other dimensions of gifted children's superiority. For example, the fact that gifted children are equal to ordinary children in the standing broad jump is taken as evidence of their ‘superior neuromuscular energy’ (Hollingworth, 1926, p. 25) because the gifted have to compete in this athletic event with the handicap of weighing 7 pounds more than their non-gifted peers. (Margolin, 1994, p. 18)

Leta's dogged determination to disprove the “popular superstition that the intellectually gifted tend to be puny, weak, and undersized” (Hollingworth, 1930a, p. 346) and her unapologetic publication and discussion of her results invited criticism from both some of her contemporaries and more recent scholars. Of particular concern was Leta's belief that intelligence and socioeconomic class were linked, a belief that would lead her to align herself with the Eugenics Movement.

> We have, in the first place, the established fact that children who test as gifted and who are the best learners at school, are usually derived from parents with superior incomes … At the opposite extreme of

> income, we have paupers; and here we have an actual test knowledge of intelligence. Paupers are very stupid as a group, including few persons of better than average mental capacity. A lengthy bibliography of scientific studies exist, to establish this fact beyond a doubt. We do not have to rely upon inference from the intellectual status of their children, which, we may note in passing, is also low. (Hollingworth, 1926, pp. 354–355)

Leta discussed the Eugenics Movement in her book, *Gifted Children: Their Nature and Nurture*, accepting its basic belief in the virtue of population control based on *fitness* to reproduce, but ultimately dismissing it as unrealistic because "a majority of the human race cannot be expected to legislate itself out of existence" (Hollingworth, 1926, p. 199). She wrote,

> Only the very intelligent and altruistic minority will understand such propositions as that the earth might be saved by rational means from overpopulation; and that in this process of limitation it would ultimately reduce misery if the stupid, the criminal, and other mentally, physically, and morally deficient would refrain from reproduction. Those whom it is thought highly eugenic to eliminate through lack of offspring are the very ones who most often cannot grasp the message or, grasping it, are indisposed to comply with its conditions. (Hollingworth, 1926, p. 199)

Leta's views confounded her colleague, William Heard Kilpatrick, a venerated Teachers College professor with whom she team-taught an education course in the 1934–1935 and 1935–1936 school years (Kilpatrick, 1935). Of her performance in class, he noted in his diary "Mrs. Hollingworth got off on one of her pessimistic and fatalistic attacks on people generally" (Kilpatrick, 1935, p. 51). He noted her predictable, *unscientific* insistence on sharing her views whenever the opportunity arose: "She has a few obsessions, which she mistakenly calls psy-chology or science on 'the facts.' With these she brings forward with automatic sureness whenever certain cues are given. A more unscientific mind I have never observed" (Kilpatrick, 1935, p. 179).

Whether Kilpatrick's words were supported by fact or were simply the vent-ing of a frustrated professor at philosophical odds with his co-

instructor is difficult to tease out. It does appear to be true that Leta was unwavering and vocal about her beliefs about the heredity of intelligence as measured by *mental tests* and the superiority of those possessing high levels of it; her writings and transcripts of her addresses show a single-minded focus on these topics, whereas Kilpatrick's life work centered around the enactment of democratic principles in education (Saphar, 1964). Kilpatrick was not alone at Teachers College in questioning her views. He wrote in his diary,

> Mrs. Hollingworth is in great danger of making herself and her position ridiculous. The students really all laughed at her today when she took the position that the working classes did not revolt because they were lacking in native ability. (Kilpatrick, 1934, p. 276)

Upon her death, Leta was remembered in the *New York Times Book Review* as belonging "to the group of pioneers, fated to speak the truth, whether it is acceptable to people in general or not" (as cited in Hollingworth, 1943, p. 157). But whether Leta possessed an *unscientific mind*, as Kilpatrick claimed, is more debatable. Among her numerous other scholarly accomplishments, Leta was listed in *American Men of Science* five years after finishing her Ph.D. (Cattell & Brimhall, 1921), authored eight books, published over 80 articles, delivered numerous invited scholarly addresses, and, after her death, was noted as a "charming scholar and a leader of greatest consequence and importance in this field" by the President of Columbia University (Hollingworth, 1943, p. 157). Carl Rogers, who worked under her at Columbia, called her "a sensitive and practical person" (Kirschenbaum & Henderson, 1989, p. 7). Another graduate student said of her, "For years, long before I ever met her except through her books, I had a kind of hero-worship for her" (Hollingworth, 1943, p. 156).

Regardless, Leta's alignment with the Eugenics Movement has continued to cast a shadow over her work and over the foundations of the field of gifted education. Numerous modern scholars have pointed with some consternation and disbelief to the fact that the field of gifted education still celebrates Hollingworth as its *nurturant mother* despite her classist and racist beliefs (e.g., Margolin, 1994; Martin, 2010; Osgood, 2010; Selden, 2000; Winfield, 2007). Indeed, it is difficult to find many honest critiques or even acknowledgements of Leta's beliefs about the social and racial origins

of intelligence anywhere in the field's literature; in the special issue of *Roeper Review* (1990) dedicated to and focused on Leta's life and work, only Borland (1990, p. 163) gives passing mention to Leta's consideration of Eugenics. In fact, in the editorial comments prefacing that volume, guest editor Linda Krieger Silverman wrote:

> If we collectively seem to present an idealized picture of Leta Hollingworth as a person as well as a contributor, it is because in all the letters, personal experiences, and writings about Leta that we have encountered, there has been nothing but praise for her. (Silverman, 1990, p. 134)

Indeed, the portraits of Leta painted in nearly every biography, tribute, or existing communication are so laudatory that they provoked James Borland to write, in 1990: "The portrait that emerges is one of an almost annoyingly virtuous saint, and I, for one, miss some indications that Hollingworth was as human as the rest of us" (pp. 162–163). In one particularly notable exception, Rudnitski (1996) examines how Leta's conflicting legacy contributed to an inconsistency that continues to plague the field today: a tendency toward an "'objective' measurement paradigm in the identification of students for gifted programs … juxtaposed with a very democratic paradigm in curriculum and teaching in those same programs" (p. 1).

Clearly, Leta was a remarkable, prolific, and from most accounts a deeply likeable and moral human being. However, even taking into account the context and popular views of her time, she did possess some very vocal and, most likely to many, objectionable views on the nature of intelligence and the relative worth of the various social and racial classes in the United States. And these assumptions about the hereditary nature of intelligence and the natural superiority and deservedness of those who possess it underlie all of Leta's writings and findings— writings and findings that we repeatedly and, for the most part, unquestioningly claim as providing the foundation to our field.

How, then, as a field, *do* we reconcile the two very different sides of Leta: the Leta who helped define and draw attention to the academic and social needs of highly intelligent children and the Leta who believed and wrote such things as "paupers are very stupid as a group"? We can attribute

some of Leta's thinking to context—the time period in which she lived—but we must also acknowledge that she worked closely with many thinkers, including William Heard Kilpatrick and John Dewey, who held strong beliefs in the malleability of intelligence (Dewey, 1909, 1929; Kilpatrick, 1918). We can also look to the fact that Leta herself overcame many obstacles—poverty, childhood trauma and abuse, sexism—to cultivate, as the 1940 Carnegie Corporation Report of the President put it, "a career of great productivity and brilliance in several fields of education and psychology" (cited in Hollingworth, 1943, p. 154), and thus may have been "less sympathetic to environmental factors in talent development" (A. Robinson, personal communication, April 30, 2012) than other thinkers might have been. We might also consider that Leta's passion for what she regarded as the plight of the gifted child made her extra vigilant in championing their cause and, as a result, led her perhaps too stridently to *prove* through scientific means the biological bases of gifted children's merits and value to society. And while Leta was very vocal in her belief that civilization's continued existence depended upon the developed talents of these special children, her actions indicated that her tireless work on their behalf stemmed more out of concern for the individual children's welfare than out of a desire to improve society. She not only studied and measured these children but also cared deeply about them and *took care* of them. She taught them, counseled them, remained in contact with many of them for the rest of her life, provided financial assistance to them when necessary, and helped them find careers as adults.

Any of these reasons might help explain (not excuse) Hollingworth's views, but it does seem important that as a field we acknowledge and discuss them. Our silence has too often been taken as assent (see, for example, Margolin, 1994 and Osgood, 2010), and our acknowledgement need not detract from Hollingworth's legacy as an early—and prolific—contributor to the field.

What is perhaps most remarkable about and worthy of emulation in Leta's work in gifted education is how thoroughly and relentlessly she pursued the ideas and questions important to her. Initially blown away by the "clear and flawless workings" of Child E's mind, Leta proceeded to dedicate the rest of her life to exploring, student by student, not only the minds and intellectual capacities of students like E but also their physical and emotional characteristics. Once she had obtained a comfortable sense of

those characteristics, she set about creating in PS 165 and later in the Speyer School classroom environments and instructional approaches in and through which these characteristics could be nurtured and supported. Within those classrooms, she sought to create thoughtful learning experiences that would challenge and engage children and then field test them, collect data on their impact, and publish them for use by other teachers. She was not satisfied simply to report on the characteristics of gifted children; she sensed the void in the provision of appropriate education for these students (a void which she believed had a profound impact on their lives) and worked tirelessly to fill it. She spent the latter part of her life fighting the myths about highly intelligent children that she believed got in the way of the realization of their full potential: that they would make it on their own, that they were physically inferior, and that they regressed to mediocrity with age (Jolly, 2007).

If Leta's life and work tell us anything about Leta, it is that she was a fighter and that she was resolutely independent. These two qualities must have carried her through the last 10 years of her life, when she was secretly battling cancer, a fact that she hid even from her husband. In 1929, when Leta was 43, her doctor informed her that she had a tumor in her stomach. She told her family that it was not malignant and refused to go in for further medical examinations from that time forward, “even against the plea of those closest to her” (Hollingworth, 1943, p. 149). After she died of advanced, inoperable, and untreatable abdominal cancer 10 years later, the physicians who attended her during her final hospital stay told her husband that they believed she had known that the tumor was malignant “from the beginning, but chose to march straight to the end and then collapse, rather than endure a life of invalidism and a series of surgical experiences destined at most only to postpone that end” (Hollingworth, 1943, p. 150). While her husband was clearly devastated by the loss of his wife and partner of 30 years, he believed that it was characteristic of her matter-of-fact personality to put on a brave face and “march straight to the end.”

She was able, during those 10 years, to see many of her life's personal and professional goals come to fruition: she was able to start her long dreamed-of school for gifted children; was, along with her husband, presented with an honorary degree of Doctor of Laws from her Alma Mater, the University of Nebraska; acquired a magnificent home in the woods in New York's Hudson valley called Hollywyck; and was made a full

professor at Columbia. During the latter part of those 10 years, her attentions began to turn toward home—not to her current home in New York, but to her original home in Nebraska, as though in an attempt to bend her life's path, which had thus far been rigorously linear, into a circle.

In an invited *homecoming letter* in the *Nebraska State Journal* dated Dec. 3, 1937, she wrote: “Sometime I shall come back to Nebraska for good. I was born there. I was reared there. I was educated there. I shall take the last long sleep there. The East is too alien for purposes of eternal sleep” (cited in Hollingworth, 1942, p. 3). Her scholarly attentions also turned homeward, themselves making a gentle arc back to her childhood on the prairie. In her later years, her consuming interest was in the “highly intellectual young who are handicapped, perhaps by not being understood, perhaps by poverty” (Hollingworth, 1942, p. 144). From her own struggles, “she very well knew the fallacies underlying the slogan, ‘The bright can take care of themselves’” (Hollingworth, 1942, p. 144).

Leta Stetter Hollingworth died on November 17, 1939. She left behind many things: a deeper and more sympathetic understanding of intellectually gifted children; a model of how research and service can dovetail seamlessly and productively; brilliantly reasoned, articulated, and enacted principles of curriculum for gifted students; and, last but not least, numerous individual lives bettered by her ongoing support. There is perhaps no better way to close a discussion of Leta's life than with her own words, describing, at 20 years old, how and for what she hoped to live her life, and how she hoped to look back on her life on her deathbed:

> As for me, I think I could care above all things to have my life absorbed by human beings—just to give as much as I have to people. I believe that they are as willing and eager to absorb one's life as lawns are, or kettles or hats. I conceive of it as terrible to lie at the end of the world on one's death bed, and look back only upon rows and rows of shining kettles or “good investments” or medicine bottles, emptied in the interests of one's “health.” I have that sinking feeling when I think of it. Such things seem to me so pitifully futile, but there is more comfort in the thought of life being absorbed by life again. So I should prefer to give what I have to human beings, since give it somewhere we all must. (Stetter, 1906, p. 39)

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8

CATHARINE MORRIS COX MILES AND THE LIVES OF OTHERS (1890–1984)

Ann Robinson and Dean Keith Simonton

In the archives of the Center for the History of Psychology, documentary researchers will find a brief segment of footage in a home movie. Against the backdrop of a winter day, a smiling Catharine Cox Miles jumps from behind a tree and hurls a snowball at the amateur film photographer, most likely her husband Walter (W. R. Miles, n.d.). Of middling age, Catharine is properly behatted for the time and the temperature. With her is a young boy who lunges from behind the same tree, takes aim at the hapless photographer, and lobs a snowball toward the lens. The film clip is less than a minute long but reveals much about Catharine Cox Miles.

Catharine Morris Cox: Combining Biography and Measurement

Catharine Morris Cox (later) Miles is most widely known in the field of gifted education as the author of Ter man's second volume of *Genetic Studies of Genius*. One of several women researchers associated with the Terman studies (Rogers, 1999), Catharine undertook the examination of more than 300 eminent historical figures who were born between 1450 and 1850 to determine if their adult achievements might have been predicted by their childhood and adolescent IQs. To carry out such a study, ultimately her doctoral dissertation, Catharine and her team read over 3,000 biographies of

the 301 men and women appearing in Volume II, *The Early Mental Traits of Three Hundred Geniuses* (Sears, 1986).

Catharine had earned a bachelor and a masters of arts in German language and literature at Stanford University in 1912 and 1913, respectively, and read biographies and primary sources in English and German. Other sources in other European languages, notably French, appeared in the *Early Mental Traits* bibliographies, but Catharine was unlikely to have read those works herself (E. Jones, personal communication, March 5, 2013). Although she had the assistance of other researchers to read sources and to establish the reliability of her scoring scheme and despite the direction by Lewis M. Terman, Catharine was the sole architect of the 842-page second volume. In fact, it is the only volume of the five making up *Genetic Studies of Genius* that does not have Terman as the author or co-author. Her meticulous typewritten notes on each eminent figure are preserved in the Terman Archive at Green Library, Stanford University, and handwritten documents on her doctoral research project are found in the Walter R. and Catharine Cox Miles collection housed on the campus of the University of Akron, the home of the Center for the History of Psychology. The Miles' were savers of paper, thus their collection is rich with notes, photographs, hand calculations of the IQ scores gleaned from biographical analysis, notes on testing sessions and consultation cases from Catharine's years as a practicing clinical psychologist, and programs, reports, and drafts of work. These, in addition to the Anna S. Cox Brinton Family Papers (Collection Number 1228) and the Howard and Anna Brinton Papers (Collection Number 1189) at Haverford College in Pennsylvania, form the basis of the documentary evidence used to construct her life. Her many publications form the basis for the analysis of her contributions to the field.

A Life in Humanitarian Service, Books, and Clinics

Catharine was born into a Quaker family on May 20, 1890; her mother Lydia Shipley Bean and father Charles Ellwood Cox lived in San Jose, California, where her father was a mathematics professor at Stanford University and a representative of the Provident Mutual Life Company (Brinton, 1913–1932, HC. Col. 1228, Box 8, Folder 2). She had one older sister, Anna Shipley Cox (later Brinton) (1887–1969), and a third sibling

who did not live to adulthood (Sweitzer-Lamme, 2012). The sisters must have been close; numerous letters between the two are found in both the archives at the Center for the History and at the Haverford Library Quaker Collection. At the conclusion of her doctoral studies, Catharine included Anna in the acknowledgements found in the author's preface to *The Early Mental Traits of Three Hundred Geniuses* (Cox, 1926). As young women, both sisters, Anna and Catharine, were active in the Quakers' humanitarian work in Europe following World War I. Anna served in Poland; Catharine, in Germany. In 1919 and in 1920, Catharine was in charge of feeding children in Berlin and the surrounding area for the American Friends Service Committee (Brinton 1919–1920, HC. Col. 1228, Box 22). A poignant photograph shows Catharine surrounded by a small group of children seated in an uneven line, their shoes trailing in the dusty soil. Catharine cuddles one small child holding a stuffed toy kitten, while nearby a large metal can indicates this is one of the feeding sites established to care for hungry German children (W. R. Miles & C. C. Miles, ca. 1919–1920, Box V57, Folder, CCM). Following her Friends service in Germany, Catharine returned to the United States, taught German at the College of the Pacific, and achieved a full professorship there.

Situated at Stanford

Catharine left the College of the Pacific in 1920 and began to work on her doctorate in psychology at Stanford while maintaining a teaching appointment in Stanford's German Department to support herself. According to Sears (1986), she would not have been able to secure a dissertation project from Terman's longitudinal study which was just beginning. She, therefore, undertook the retrospective study of eminent adults based on biographies and biographical materials which resulted in Volume II of the Terman studies. For a brief period after completing her doctorate, she served as a psychologist in a mental hygiene clinic associated with a hospital and with veterans' services in Cincinnati but returned to Stanford to enter academia.

In 1927, Catharine was hired by Lewis M. Terman to become a research associate on a project that resulted in the construction of the Terman-Miles Masculinity-Femininity Test. In that same year, she met and married widower Walter R. Miles, who had been secured by Terman to direct his

Psychology Laboratory at Stanford. Miles, also a Quaker, had three teenaged children, Thomas, Caretta, and Marjorie, at the time he and Catharine were married, a scant two years after the death of his first wife. Catharine and Walter had one daughter together, Anna Miles (later Jones) and a son, Charles Ellwood, who died at birth (Hergarty, 2012; Jones, 1984, Box M1199.26, Folder 11). While working full-time in clinical or academic positions, Catharine raised the surviving four Miles children, supported, collaborated, and published with her husband who was known for his research on the two-story rat maze (W. R. Miles, 1927), on measures of drunkenness, on investigations of night vision goggles for military airplane pilots (W. R. Miles, 1943), and on the diminution of performance in aging individuals as part of the Stanford Late Maturity Studies conducted from 1929 to 1933 (C. C. Miles & W. R. Miles, 1932; W. R. Miles, 1967).

Heading East

In 1932, Catharine and Walter left Stanford to assume academic positions at Yale University. There, she became a Clinical Professor of Psychology in the Department of Psychiatry at the Yale Medical School (W. R. Miles & C. C. Miles, ca. 1932, Box M1104). During her time at Yale, Catharine kept a busy clinical schedule. A picture taken in 1952, a year before her retirement from Yale, shows her seated at a workman-like desk in her office. She is focused on a set of papers cradled by a leather-tipped desk blotter. Her books, files, and papers surround her, but are neatly stacked, shelved, and organized. Arranged on her tidy desk are family pictures that, should she raise her eyes from the files on which she concentrates intently, her eyes would fall on the family gallery immediately. It is the office of a productive professional connected to her work and softened by her personal touches. In addition to the two wooden desk chairs, an upholstered chair is placed at the side of her desk. It looks like a comfortable chair in which Catharine might read (W. R. Miles & C. C. Miles, Box V57, Folder CCM). In her obituary, Sears (1986) noted that Catharine was the only female full professor of psychology in the Department of Psychiatry at Yale. In the 1930s and 1940s, her appointment was a considerable achievement (Jones, 1984).

In 1953, Catharine and Walter retired from Yale and then spent three years in Istanbul where Walter taught at the University of Istanbul as a Professor of Experimental Psychology. Catharine was offered a position in

Applied Psychology in Istanbul, but declined it (W. R. Miles & C. C. Miles, 1953). They returned to the East Coast of the United States, where Walter became the scientific director for the Naval Submarine Base in New London, Connecticut, a post he held for eight years (Goodwin, 2003). Walter died in 1978 at age 93 (Miller, 1980). Less than a decade later, Catharine Morris Cox Miles died in Friends Nursing Home in Sandy Springs, Maryland, on October 11, 1984, at the age of 94 (Sears, 1986). A picture of the white-haired academic couple captures Catharine holding Walter's hand in a sunny garden framed with blowsy summer flowers. She is simply dressed in cotton; Walter sports a business suit and tie. Catharine is looking at Walter; his gaze is directed obliquely as if she were not quite in his line of sight (W. R. & C. C. Miles, n.d., Box V57, Folder CCM).

Contributing to the Research on Giftedness

Early Mental Traits: The Magnum Opus

Although Catharine Cox Miles had a long and productive career under her new married name, the single-authored book published in 1926 under her maiden name, Catharine Morris Cox, constitutes her most impressive and enduring contribution not only to the study of intellectual giftedness but also to psychological science. As noted earlier, this volume was effectively her doctoral dissertation. Although included as the second volume of *Genetic Studies of Genius*, it really had no direct connection with the other five volumes. The first volume and volumes three to five all concerned the proverbial *Termites*. These research participants were the more than 1,500 children who had scored exceptionally high on the Stanford-Binet Intelligence Scale (most with IQs of 140 or above) and who would be followed all the way to midlife (and, indeed, Terman died before the last volume was published). Instead, Catharine's subjects were 301 of the greatest creators and leaders of modern western civilization. Her sample included important figures like Leonardo da Vinci, Martin Luther, René Descartes, Rembrandt van Rijn, Isaac Newton, Benjamin Franklin, Johann Wolfgang von Goethe, Napoleon Bonaparte, Ludwig van Beethoven, Charles Darwin, and Abraham Lincoln—not the usual run-of-the-mill subjects. Rather than a longitudinal study using psychometric methods, hers

was a retrospective study using historiometric methods (Simonton, 1990). Historiometry was a term introduced earlier to cover when “the facts of history of a personal nature have been subjected to statistical analysis by some more or less objective method” (Woods, 1909, p. 703). Appropriately, this new method was deemed especially useful to study the “psychology of genius” (Woods, 1911, p. 568). Historiometry remains the only scientific approach to the investigation of historic geniuses.

Although Volume II might thus seem like an oddity between Volume I and the three volumes to follow, it actually features a very critical place in the set. In effect, her investigation provides a prelude to the remaining volumes. With the publication of the first volume in 1925 (Terman, 1925), her mentor had embarked on a truly ambitious inquiry: Would children identified as having intellects in the top 1% of the population grow up years later to become high achieving adults—geniuses, in a word? Alas, given that his children were only around 11 years old at the onset of the inquiry, this question could only be answered after a very, very long wait. Indeed, the final volume did not appear until almost 35 years later (Terman & Oden, 1959). Accordingly, by inverting the original question, Catharine's historiometric study offered a glimpse of what was to come. Rather than ask whether the intellectually gifted would grow up to become geniuses, she asked whether recognized geniuses would have been identified as intellectually gifted had they taken the Stanford-Binet as children. Moreover, she wanted to know whether any differences in intelligence predicted the magnitude of genius.

This reframing of the core question seems to raise more problems than it solves. In particular, how are IQ scores obtained for long-deceased creators? How can their differential genius be assessed? The answer to the first question was based on a study that Terman (1917) had published only one year after he had disseminated his Stanford-Binet test (Terman, 1916). Terman was a great admirer of Francis Galton (a pioneering historiometrician), and only a few years before Karl Pearson (1914), a former protégé of Galton's (and creator of the Pearson correlation coefficient), had published a three-volume biography of his teacher. This biography made it quite evident that Galton was a child prodigy although Pearson famously commented in the biography that little Francis was not especially distinguished in school (Pearson, 1914). Because Terman at this point had adopted the practice of defining IQ as the quotient of mental age

divided by chronological age multiplied by 100 as suggested by Stern (1912), he inferred that Galton must have had an IQ of around 200. To be specific, Galton's mental age tended to be twice his chronological age. Catharine's key decision was to apply this basic definition to a much larger sample of geniuses.

For that purpose, she drew upon a historiometric inquiry that James McKeen Cattell (1903) had published two decades earlier. Using the amount of space devoted to historic figures in a multilingual collection of biographical dictionaries and encyclopedias, Cattell had ranked the 1,000 most eminent persons in Western civilization (cf. Whipple, 2004; see also Murray, 2003). By applying specified selection criteria, she obtained her sample of 301 geniuses. She then had a team of researchers compile the raw data describing the cognitive development of each subject. Although she provided only abstracts of these data in the volume, she offered one example in full, the intellectual chronology for Friedrich Wilhelm Joseph Schelling (reprinted in Dennis & Dennis, 1976). This information was then used to calculate IQ estimates. Significantly, she did not do the calculations all by herself, but rather recruited three other independent judges, including Terman, her mentor, and Florence Goodenough, who about the same time was creating her famous Draw-a-Man Test.

Catharine produced four different estimates. First, she distinguished between IQ I, calculated from development to age 17, and IQ II, based on ages 17–26. Second, because she calculated reliability coefficients for these two sets of measures, she also computed corrected IQ estimates for the two age periods, these revised statistics naturally being somewhat higher than the raw IQ scores. Besides showing that these 301 geniuses were as smart or smarter than the average Termite, she went a step further by calculating the (Pearson) correlation between the IQ II estimates and Cattell's (1903) eminence ranking, obtaining $r = .25$. She even adjusted this correlation for data reliability, getting a still statistically significant $r = .16$ as a result. Her impressive statistical analyses were state of the art for the time.

Even though Catharine's 1926 work is best known for its historiometric IQ estimates, it is important to recognize that she also was fascinated with the role that personality had in the attainment of eminence. Hence, she took a subsample of 100 geniuses and had them evaluated on 67 character traits (this time using two independent raters). In addition to looking at how personality varied according to domain of achievement, she also showed

that high motivation, particularly persistence and determination, was essential to success in all domains. This find-ing became prophetic when later Terman found that not all of his intellectually gifted children would realize their early potential (Terman & Oden, 1959). Indeed, bona fide geniuses were relatively few. What many of the *underachievers* lacked was drive and dedication.

Early Mental Traits: The Aftermath

Catharine's 1926 magnum opus can be considered the greatest historiometric work since Francis Galton's 1869 *Hereditary Genius* and probably counts among the top-five historiometric studies of all time (Simonton, 1990). According to Google Scholar, the volume has been specifically cited hundreds of times, and the precise count may surpass a thousand if the numerous co-citations with the other volumes or the entire set could be disentangled. Often a researcher will not only refer to her IQ estimates but also cite the entire *Genetic Studies of Genius* and even give full credit to Terman (1925–1959) for the whole. Portions of the book have also been reprinted in anthologies (e.g., Albert, 1992; Dennis & Dennis, 1976), and the study has inspired subsequent work on the relation between intelligence and exceptional achievement (e.g., Ball, 2012; Walberg, Rasher, & Hase, 1978; cf. White, 1931), including both secondary analyses of her raw data (Simonton, 1976; Simonton & Song, 2009) and new measures on different samples (Simonton, 1984, 2006, 2008). Despite criticisms of her methods (e.g., Gould, 1996; Robinson, Andrew, 2010), her IQ scores have been validated using very different methodologies that suggest that she was not too far off the mark (Simonton, 2009). Some of these IQ scores have even become cultural memes that proliferate in print and on the Internet (again often without reference to her identity). As proof of this statement, a reader needs only Google the term IQ plus the name of one of the more famous persons in her 301, such as Leonardo, Mozart, Newton, Descartes, or Napoleon (The IQ of Famous People, n.d.; Wikianswers, n.d.). The last time we did this for Mozart, we obtained the figure 165, which is exactly her reliability-corrected estimate for age 17–26 (i.e., IQ II).

Having been distracted on other projects described in the biographical section, Catharine did very little historiometric research after 1926.

Nonetheless, a full decade later she co-authored, under her married name, an article on the "Childhood Physical and Mental Health Records of Historical Geniuses" (Miles & Wolfe, 1936). Although this study involved a subset consisting of just 50 of the original 301 geniuses, two new measures were added, namely childhood physical health and mental health. Her primary goal was to evaluate Lombroso's (1895) claims that geniuses constitute a sickly bunch, both physically and mentally—a view opposed by Terman (1925), who strongly believed that intellectual giftedness was positively associated with physical and mental well-being. Miles and Wolfe sided in Terman's favor.

Not surprisingly, the 1936 historiometric study has not had the same cultural impact as the 1926 masterpiece. The sample was small, the substantive questions limited, and the statistical analyses not as impressive. According to Google Scholar (n.d.), it has been cited less than a dozen times. Ye t interest in the 1936 article was revived in a rather serendipitous manner.

As mentioned earlier, the raw data for Cox (1926) was deposited in the Ter-man archives at Stanford University. Nonetheless, one important data set was missing, namely, the assessments of the subset of 100 geniuses on 67 character traits. The second author of this chapter began searching for this data matrix shortly after he got his Ph.D., when he published a secondary analysis of her data on eminence, intelligence, and education (Simonton, 1976). Because she had never fully reported her analyses of these character ratings and because many other fascinating substantive questions could be addressed using these data, the missing information had immense potential for learning more about this significant group of geniuses.

Fortunately, after almost three decades of wasted effort, this chapter's second author encountered a graduate student, Anna Song, who managed to procure funds to travel to Akron to study the Miles and Cox Miles papers in depth. There Anna (now Dr. Song) assiduously photocopied every piece of paper that looked even remotely connected to the 1926 study. After pouring through these almost random pages, we noticed that fully 282 geniuses had been scored on physical and mental health. These 282 geniuses made up the main sample in *Early Mental Traits* (the remaining 19 constituting an initial calibration sample). Because IQ and eminence measures were already available for this group, a new secondary analysis was conducted

(Simonton & Song, 2009). Although it is not necessary to report the full results here, one finding holds special interest. Contrary to what Catharine's mentor would have wanted, IQ was negatively correlated with physical health. Those geniuses with the highest IQs were not the specimens of bodily vigor and robustness that he had hoped they would be (for more discussion, see Simonton, 2010).

The story of Catharine's *Early Mental Traits* may not be over. Despite the extensive and enduring archival inquiries that have left researchers empty-handed, her missing personality ratings may yet to be found somewhere. She and her husband saved an array of documents, even small scraps of paper, so in some corner in a forgotten file cabinet may hide a yellow page showing a matrix with over 100 rows (for geniuses plus a column for their names) and 67 columns (for character traits) with numbers ranging from −3 to +3 in each cell. When that data sheet is found, new secondary analyses can be made, and the current narrative will continue.

Surveying the Scene: Catharine's Contributions to Handbooks and Reviews

In addition to *Early Mental Traits*, Catharine produced other scholarly work with direct relevance to gifted education. Despite her busy clinical schedule at the Yale School of Medicine, she wrote a lengthy chapter, "Gifted Children," for Leonard Carmichael's *Manual of Child Psychology*, the first and second editions in 1946 and 1954 respectively. The 1954 preface of Carmichael's *Manual* states that it fills a need "for advanced scientific manuals to bridge the gap between the excellent and varied elementary textbooks in this field and the scientific periodical literature of psychology" (1954, p. v). Carmichael was sufficiently pleased that the first edition had been translated into French and "published by the Pressess de Universitaires de France" that he saw fit to mention the international audience (1954, p. vi). The range of authors and topics in the *Manual* was broad—anthropologist Margaret Mead contributed a chapter on *primitive children* while Arnold Gesell reviewed infant behavior. Other Carmichael chapters were authored by psychologists who had worked with the Stanford studies. Both Florence Goodenough and Lewis Terman appear, but Catharine's was the only chapter in the manual to address directly the issue of precocious children. In keeping with her scholarly habits, she produced a chapter

contextualized in the history of research on giftedness. In 80 pages she begins with references to the Terman studies as an anchor but reaches back into history to provide anecdotes of what she calls, “prescientific observation of gifted children” (Miles, 1954, p. 987). She recounts the brief four-year life of the prodigy Christian Heinrich Heineken which tends to appear down to the current day in textbook and news accounts of remarkable precocity. Lest the reader assume that childhood prodigiousness is fatal, Catharine balances the story with Karl Witte's early development and long, happy life. From these *prescientific* observations, she situates the beginnings of scientific psychological observation in the statistical studies of Galton and the study of social influences carried out by DeCandolle, and fetches up with the appearance of Binet's work on mental measurement and Cattell's methods of studying eminent men. When she moves into the “modern period of quantitative study” (1954, p. 989), Catharine again gives pride of place to Terman, but includes the work of Hollingworth, Jenkins, Witty, and G. M. Whipple. Despite her intellectual roots in the heyday of the mental measurement movement of the 1920s, 1930s, and 1940s, many of the topics that Catharine chose to include have continued as contemporary concerns. In discussions of the characteristics of gifted children, she directly addresses issues of racial variation and cites Jenkins' (1936) study on locating high IQ African American children designed to refute the racial superiority hypothesis. As expected for a scholar from her generation, she is appreciative of the IQ as a useful tool, but she notes that intelligence alone will not convert potential to accomplishment. In a section entitled, “Potentiality and Realization,” Catharine notes,

> Intelligence is an important factor in accomplishment, but it proves to be only one factor among others, perhaps many others. Interrelationship among the factors may be as important for accomplishment as the presence of the factors themselves. The follow-up studies so far made suggest that more effective personalities emerge when heredity and environment are both favorable. No single unfavorable element in the picture has been found to block accomplishment in the gifted if a sufficient number of others are favorable. Similarly, no single favorable element has proved sufficient to insure the realization of potential ability along the many possible lines of gifted accomplishment … (Miles, 1954, p. 1027)

Catharine's chapter acknowledges scientific talent, artistic talents, and gives a nod to the multiplicity of domains in which potential appears and should be supported. Given her earlier work on the calculation of childhood, adolescent, and early adult IQs of historical geniuses, her words might surprise the reader, but Catharine was aware of both the diversity of talents and of the importance of a lifespan view of their development. Apparently, every decade grapples with terminology, and Catharine's decades of professional activity were no different. She noted that the terms *genius* and *near-genius* which had been in use with respect to children earlier were being replaced by the term *gifted* (1954, p. 985).

Her review of the literature on the education of gifted children also rings familiar programmatic chimes for the field. She identifies two types of educational adaptations to meet the needs of gifted learners. Differences in learning among children require "diverse rates of advancement" (1954, p. 1029) and "some flexible form of curriculum enrichment" (p. 1029). Essentially, Catharine outlines acceleration and enrichment as key strategies for educating gifted students. She goes on to comment that adopting the XYZ grouping model in and of itself will not necessarily meet the needs of the school struggler, nor the advanced learner. She suggests that meeting the needs of the most advanced learners requires a special environment and comments that the evidence from the "opportunity classes" differs from Witty's view that grouping in the heterogeneous school is undemocratic (Miles, 1954, p. 1031). At the time she wrote this chapter, Catharine argued that the experimental studies of gifted students appeared to favor grouping but that they were too few to be definitive. She concluded that various administrative schemes might be effective if students could advance at different rates and if an enriched curriculum were in place to provide opportunity and stimulation.

Toward the close of her active publication career, Catharine Cox Miles combined many of her research interests in a paper she presented at a conference on gifted children organized by E. Paul Torrance at the University of Minnesota. She participated in the conference, provided a chapter to a subsequent publication, and prompted by a letter from Program Supervisor Mrs. Jean Lowe, her recorded paper was broadcast by KUOM, the campus station, on October 14, 1958 (W. R. Miles & C. C. Miles, 1958). Entitled "Factors in the Life of History of Talent," Catharine's paper briefly sketched *Early Mental Traits* and then introduced a similar study of 100

twentieth-century Americans. Using the Cattell method of sampling biographical entries with the most lines of text, Catharine selected 100 individuals from the *Dictionary of American Biography*. The purpose of her study was to examine "many of the questions asked about the origin, growth, and development of talent" (Miles, 1960, p. 55). The sample included individuals from various domains including the composer George Gershwin, the novelist Edith Wharton, and the industrialists Harvey Firestone and Walter Chrysler. Catharine framed her analysis against the background of insights she had garnered from the *Early Mental Traits of Three Hundred Geniuses* but spent more ink pondering the sources of support that role models, the opportunity to work with able peers, and a happy home life might provide to the development of talents over the lifespan. Her concluding words are especially relevant to young women,

> I have heard an able statesman say, "When the sophomore girl quits college to get married, there goes some educational effort wasted." But who needs more the training in ideas, attitudes, problems of living and of character development than these young women who may become mothers of the talented. And the fathers too might learn something more with respect to sharing not only play time and their amusements but also the crafts that develop skills and the interests, pursuits, attitudes, and beliefs that underlie all effective living. (1960, p. 64)

Conclusions, Contributions, and Catharine's Legacy to Gifted Education

What themes emerge from an examination of Catharine's life and work? First, her life was substantially given over to the care of other people's children. From her early experiences in Germany organizing feeding programs for child victims of the war, to her parenting of Walter Miles' orphaned teenagers, to her busy clinical schedule and extensive correspondence with parents, Catharine Cox Miles looked after others and especially other people's children. Even in her major work, focused on eminent adults, *Early Mental Traits*, Catharine chose an idealized portrait of John Milton as a 10-year-old child with a solemn gaze framed by the ruffled collar of the day for the frontispiece. She had a sympathy for children past and present.

Second, Catharine developed a taste for and a dedication to the exceptional person (Miles, 1937). She buried herself in the biographies of historical geniuses (Robinson 2009a, 2009b). She contributed substantive reviews to the gifted child literature; as a clinician she encountered a number of unusual cases and even published a case study of a transgendered individual as part of her work on the Masculinity-Femininity Scale with Lewis Terman (Miles, 1942).

Finally, Catharine's work managed to influence both scholarly inquiry and infiltrate popular culture. Her massive and meticulous work, *Early Mental Traits*, is acknowledged by the first author as her inspiration for turning to biographical source material and by the second author as the significant historiometric study that provided both methodological insight and a rich source for analyses of the Cox data. In terms of popular culture, Catharine Cox Miles' IQ estimates for notable figures in history appear in news reports and on websites. As stated earlier, these cultural memes are frequently unattributed or misattributed, but they have entered our common knowledge. The unassuming Quaker wife and mother, meticulous and creative scholar, and productively busy Yale clinician, Catharine Cox Miles, would no doubt be quite surprised.

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9

CREATIVITY, CULTURAL DIVERSITY, AND CRISIS

Jennifer L. Jolly

Paul Witty, Martin Jenkins, Cal Taylor, E. Paul Torrance, and Kazimierz Dabrowski all contributed to a more inclusive and expansive concept of giftedness, providing a multidimensional description and greater explanation of the behaviors associated with gifted persons. World Wa r II left an indelible mark on all of their lives. As psychologists, their participation was inevitable. During the course of the war approximately half of the 4,000 psychologists in the United States worked for the Federal Government in some capacity (Capshew, 1986). Based on the success of psychologists' efforts and contributions during World Wa r I, psychologists "easily grafted the ideal of national service onto their existing scientific ideology" (Capshew, 1986, p. 4). Some participated directly in the war effort lending their professional expertise to the testing of recruits in a variety of situations or designing instructional programs, while Dabrowski saw his homeland of Poland invaded by Germany and then taken over by the Soviet Union as he was imprisoned and persecuted by both.

The end of the war and the next several decades brought great change to the United States and its interest in gifted education. Fueled by the Cold War, the passage of the National Defense Education Act of 1958 provided the Federal Government an unprecedented interest in identifying and educating its most talented young people. This act provided a renewed attention in gifted children that had been in decline since the initial pioneering studies conducted by Lewis Ter-man and Leta Hollingworth in the 1920s and 30s (Jolly, 2009). *Brown v. the Board of Education of Topeka, Kansas*, the 1954 Supreme Court decision, would begin the integration of

schools and the further consideration of a range of abilities of children from of a variety of backgrounds (Asher, 2003). This revitalization of interest also brought forth a new group of researchers who considered giftedness in a more multidimensional way, or as in the case of Dabrowski, a reconceptualization of giftedness.

Paul Witty hailed from Indiana, the same state as Lewis Terman. He graduated from Columbia University with a Ph.D. in psychology, crossing paths with the likes of Leta Hollingworth and Ruth Strang (see the Hollingworth and Strang chapters, this volume). Eventually, he settled at Northwestern University in Evanston, Illinois. He was one of the first White researchers to investigate giftedness in African American children, challenging the findings of Terman's research, which did not support giftedness in children of color or from impoverished backgrounds. This era also ushered in the idea of organized advocacy in which Witty fully participated, helping to establish the American Association of Gifted Children and working with gifted children in the greater Chicago area. Witty also mentored and advised Martin Jenkins, an African American scholar and important figure in gifted education (see the Witty chapter, this volume).

Martin Jenkins also was born and raised in Terre Haute, Indiana, the same hometown as Witty. Jenkins initially chose a career in engineering but after find-ing little opportunity became a teacher and then went on to pursue further educational goals. Before seeking a career path in academic administration, Jenkins collaborated with Witty on studies of gifted African Americans and extended this research with other African American researchers after leaving Northwestern. His work helped to bring recognition to this population of children ignored by most other researchers of the time.

Cal Taylor and E. Paul Torrance both capitalized on the call to action ushered forth during J. P. Guilford's American Psychological Association (APA) Presidential address; the study of creativity was in its infancy, and Taylor and Torrance were at the forefront of shaping this new field of research. Both born in 1915, their careers intersected and overlapped as they both tried to understand, measure, develop, and encourage creative talent in both children and adults. Each developed instruments to help identify creative potential: Taylor's Biographical Inventories, Form U and Torrance's Torrance Test of Creative Thinking. Their work also had great

practical application, working with schools, corporations, and other organizations to increase creative behaviors and production. Due to their research and application of their work, creativity is a part of many current definitions of giftedness and often considered in the identification process.

Although Dabrowski's work was not introduced to the field of gifted education until 1979, postdating the Marland Report of 1972, his research in psychology emerged in the 1920s coinciding with the founding of the field. His work gained popularity during the 1980s as the social and emotional issues of gifted children became an increased concern of researchers and Dabrowski's work moved into the awareness of American researchers. Rather than providing an additional dimension to the existing concept of giftedness, Dabrowski's work presented a reconceptualization of giftedness focusing on the emotional and devaluing the role of intelligence in giftedness. His theory of Positive Disintegration has also been used to explain the heightened emotional understanding and subsequent behaviors of gifted children.

These researchers came from disparate backgrounds in terms of upbringing, education, and how they lived their lives and conducted themselves professionally. Their interests in expanding how society and how researchers considered and treated gifted children provide their conceptual linkages. They inherited a field that was for all intents and purposes dormant, and they revitalized it by considering a more inclusive group of children. Witty, Jenkins, Taylor, Torrance, and Dabrowski identified additional behaviors and characteristics to explicate and enrich their conceptualizations of giftedness.

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10

PAUL WITTY

A Gentleman Scholar (1898–1976)

Jennifer L. Jolly and Jennifer H. Robins

Following in the tradition of gifted education's Midwestern roots, Paul Witty was much like his predecessors Lewis Terman and Leta Hollingworth, who hailed from Indiana and Nebraska, respectively. Witty was born in Terre Haute, Indiana, before the turn of the century on July 23, 1898 and even lived in Nebraska for a short time during his childhood. He was the youngest child of William and Margaret Witty, and at the time of Paul's birth, William was employed by American Telephone and Telegraph. Raymond, Paul's older brother, died in 1906 of pneumonia. As a child, Paul worked odd jobs and used the money to buy books. By the age of 12, he had secured a large number of books, which displayed his wide variety of interests including horses, dogs, and airplanes (D.C. Heath, 1946; Witty, n.d.). In 1916 Witty graduated from Wiley High School and then attended Indiana State Normal School (also known as Indiana State Teachers College) while working as manager at Hotel Tuller, where his family resided. Limited information is available regarding Paul Witty's youth; however, by all accounts he was heavily influenced by his mother, to whom he attributed his “consuming interest in children” (D.C. Heath, 1946, p. 6). Mrs. Witty was involved in community activities, and she passed this sense of advocacy and responsibility to children along to her son, who would devote his professional career to studying and advocating for them. His mother also influenced his great interest in teaching and reading at a very young age with “a few beloved pictures books which my mother read again and again to me” (Witty, n.d., p. 1).

When Witty entered Indiana State Teachers College, his interests were physics, chemistry, and psychology (Gilman, 1972). It was here that he came across the works of Sir Francis Galton, William James, G. Stanley Hall, and Charles Darwin, among others (D.C. Heath, 1946).

After graduating in 1920, Witty went to the University of Chicago, where he entertained the idea of being a doctor, taking premedical courses and enrolling in Rush Medical College. However, his interests in physiology and psychology led him to enroll in the Department of Psychology at Teachers College, Columbia University. Here he had the opportunity to work with giants in psychology such as John Dewey and Edward Thorndike. What appealed to him most was a practical psychology, which directed him to a position as one of the first school psychologists at the Scarborough Country Day School. In 1924, he took a position at the University of Kansas, eventually becoming director of the Psycho-Educational Clinic. This position gave him the opportunity to begin his studies of gifted children. After 6 years at Kansas, Witty accepted a position at Northwestern University as Professor of Education and Director of the Psycho-Educational Clinic. He would remain there until his retirement in 1966. Witty's tenure at Northwestern was interrupted by his service as a major in the U.S. Army during World War II when he enlisted to develop training materials for illiterate soldiers (Gilman, 1972).

Witty was consistently described as a man who had a wide range of interests and activities. Although he was probably best known for his research in the fields of reading and gifted education, Witty contributed to other areas, including mental hygiene, motivation, and child development, among others. He also was known for being both a scholar and a wonderful teacher (Gilman, 1972). In a glowing portrait of his character, Witty's devotion to his teaching and interests was described in the following manner:

> Teaching as an art involves more than diligent research and preoccupation with academic subjects. It becomes an art only if one learns the art of living. Dr. Witty's intimate friends and associates long ago realized that he had learned the art of living. When others marvel at the amount of work he does and cite the number of activities in which he engages, and ask how he can stand it, his friends say, “Don't worry about Paul; somewhere along the line he learned to combine

> vocation with avocation. Try to follow him around for a day and you'll see what we mean." (D.C. Heath, 1946, pp. 12–13)

While at Northwestern University, Witty spent many mornings conferencing with students and colleagues, as people often sought him out for advice. His afternoons were busy with appointments, conferences, and correspondence, and he filled his evenings with classes, meetings, and lectures (D.C. Heath, 1946). Although he devoted most of his time to his work, Witty did find time to enjoy his life, opting to spend time with friends; go for a swim; attend engagements such as concerts, opera, and theater; and read material, including poetry. According to Walter Barbe, Witty's former student and later collaborator, Witty "was sophisticated, clearly was highly cultured, loved and appreciated music and theatre, and was all respects 'upper class'" (W. Barbe, personal communication, December 14, 2012). Witty never married or had any children, leaving much of the time he would have spent with family for writing and research and the pursuit of other interests.

Major Contributions to the Field of Gifted Education

In the 1930s and 1940s, Paul Witty emerged as one of the leading spokespersons of gifted education (Hildenbrand, 1981) and became one of the most prolific writers in the field during the 1940s and 1950s. He also had a variety of interests during his career including reading, the effects of television on children, and creativity (Beckstrand, n.d.). His interest in gifted education and gifted children spanned a number of areas, including programming options and educational provisions, identification and the definition of giftedness, gifted African American students, gifted students and science, and the *Quiz Kids* show (a popular program in the 1940s and 1950s that began on radio and then moved to television). In addition to editing one of the most important books in the 1950s, *The Gifted Child*, Witty contributed numerous journal articles and book chapters to the literature and conducted longitudinal and case study research. Gilman (1972) noted,

> Witty's studies of talented and gifted children helped to erase many common misconceptions about bright children. Before Witty's work

> with gifted children, there was a mistaken idea that gifted children were unattractive, unhealthy, and asocial…. As a result of his work many mentally gifted students were helped to realize their full potential. (p. 60)

Some of Witty's earliest work focused on the identification of gifted students through the use of IQ measurement. Witty and his colleague Lehman (1927, 1928) cautioned against the overreliance on IQ or "capacity" and considered that other factors such as "drive" or motivation may be at work when considering the difference between "ability and effective ability."

The Gifted Child

Paul Witty edited *The Gifted Child* (1951a), a book that provided an overview of gifted children. It was conceptualized by the American Association for Gifted Children (AAGC) and was considered to be one of the very best texts published on the gifted during this period (A. J. Tannenbaum, personal communication, February 19, 2010). Heralded by Terman (1954) as the "best survey of thought and action" (p. 227) in the field of gifted education, *The Gifted Child* consisted of a "who's who" in the field, with some of the most influential writers contributing chapters, including Lewis Terman, Melita Oden, and Ruth Strang. In addition to editing the book, Witty wrote three chapters: "Progress in the Education of the Gifted," "Nature and Extent of Educational Provisions for the Gifted Pupil," and "The Education of Gifted Children and Youth—Summary and Recommendations."

The 15-chapter book covered various topics of interest to scholars and educators in the classroom. Focusing on areas such as the progress of gifted education to 1951, the identification of gifted students, the Terman studies, the contributions of Leta Hollingworth, highly gifted children, teachers of gifted children, mental hygiene, and educational provisions, among others, the book shared research and suggestions for the education of gifted students. *The Gifted Child* was among the first compilations to be published in which a plethora of information and research was included in one text. Witty (1959a) felt that *The Gifted Child* helped bring about a resurgence of interest in gifted students and their education.

Research Differing From the Status Quo

During his career, Witty contributed much to the research base on gifted education and gifted students. He highlighted his work in a number of chapters and articles that appeared in books and journals. Terman's longitudinal study on gifted students began in the 1920s, and it provided the field with information about these students over time. Like Terman, Witty also conducted a longitudinal study. In 1924, just as Terman's *Genetic Studies of Genius* was to disclose the results of the first round of data from his study of 1,500 gifted students, Witty began conducting a longitudinal study of 100 gifted students in the Midwest. His study, entitled "A Study of One Hundred Gifted Children," examined children who had a reported IQ of 140 or above. The data collected by Witty were similar to those in the studies collected by Terman and Hollingworth, including school and parent questionnaires, IQ tests, and physical measurements. Witty (1930) noted that "his data (although meagre [in comparison]) agree strikingly with those of Terman" (p. 41). Despite this agreement, Witty's interpretation of the data diverged.

Witty hypothesized that factors not measured by intelligence tests impacted achievement (Witty & Lehman, 1927). For Witty (1930), "there must be, in addition to ability, the desire to achieve in a favorable environment" (p. 41). Terman's conclusions linking the identification of high IQ in childhood and adult eminence have not been born out; instead, Witty suggested that real genius included not only IQ or capacity but also must be accompanied by drive and opportunity (Witty, 1930).

Witty and Lehman (1927) felt that "the importance of capacity is overemphasized and the significance of drive neglected or under-estimated" (p. 366). IQ measures were not measures of drive and did not account for factors that influence drive. Witty was concerned with determining what distinguished those with the "will to do" and the "desire to accomplish" from those who did not achieve despite having the capacity to do so. What constituted ability from effective ability was still under speculation and required further longitudinal studies examining drive and opportunity (Witty & Lehman, 1928).

In 1940, he published his additional conclusions from the study in a chapter titled, "A Genetic Study of Fifty Gifted Children," which appeared in *The Thirty-Ninth Yearbook of the National Society for the Study of*

Education. Witty (1940) described his longitudinal study of 50 gifted students (26 boys and 24 girls) from the Midwest. He focused on family background, physical development, intelligence, educational achievement, and social characteristics of the gifted students. Ninety-six percent of the students' parents were born in the United States, and 64% of fathers were businessmen while 34% of fathers were professionals. Half of the parents graduated from college (Witty, 1940). He found that the students' physical development tended to be above average, thus providing data that refuted the common misconception about gifted students at the time. In the sample, IQs ranged from 140 to 183, with 153 as the mean at the time of the first testing (1924–1925); a second testing in 1930–1931 yielded a range of IQs of 121 to 180, with 136 as the mean (Witty, 1940). At the time of the third follow up (1933–1934), all students scored within the top 5% of all college students, indicating that students had maintained their superior ability. Regarding educational achievement, the students exceeded the norms for children of their same age in all of the subjects and appeared to have superior social adjustment compared to a control group (Witty, 1940).

Studies on Gifted African Americanss

Like a few other researchers in gifted education in the 1930s and 1940s, including Martin Jenkins (who was mentored by and collaborated with Witty; e.g., Jenkins, 1943, 1948), Witty helped contribute to the literature on gifted African American students. Witty and Jenkins (1934) explored the educational achievement of gifted African American children who attended segregated schools in Chicago. Using teacher nominations, the Stanford Binet, and New Stanford Achievement Test, results indicated that this selected group of children evidenced “educational superiority” in direct contradiction to the idea that “in school achievement the average Negro child is invariably described as being inferior to the average white child” (Witty & Jenkins, 1934, p. 585). In 1943, Witty and Viola Theman published an article in the *Journal of Educational Psychology* on Theman's follow-up study of the educational attainment of gifted African Americans. Theman's dissertation, *A Follow-Up Study of Negro Youth of Superior Intelligence*, had been written in 1942. For her dissertation research, Theman located 84 of the original 103 children in Jenkins' 1935 dissertation.

In 1943, Theman and Witty published an article titled, “Case Studies and Genetic Records of Two Gifted Negroes,” that appeared in *The Journal of Psychology*. The authors wanted to add to the literature, as there was a paucity of case studies during this period (Theman & Witty, 1943). Two case studies were included: “B,” a girl with an IQ of 200 at age 9 (originally studied by Witty and Jenkins in 1935), and “E,” a boy with an IQ of 163 at age 10. In-depth information on each child's history, family background, mental ability, and educational achievement was provided (Theman & Witty, 1943). B's parents were above average in intelligence but divorced. Her mother encouraged her to make the most of her academic skills and pursue educational opportunities. B spent much of her free time reading (typically 7–12 hours a week and averaged five books per week). Although she was well-liked by her classmates, she did not have many close friends (Theman & Witty, 1943). Many years later Child B would attend a summer class for Black teachers from the South hosted by Witty at Northwestern. During a lecture, Witty retold the story of Child B and remarked that she had failed to live up to the promise of her youth. He was unaware that B was enrolled in the class and therefore listening to this commentary. Walter Barbe happened to be sitting next to B and heard her remark, “I had four children…. What does he mean I failed to live up to the promise?” (W. Barbe, personal communication, December 14, 2012). Witty believed that with a gift came responsibility.

E had been achieving at a level higher than what could be expected for his ability, and was accelerated so that when he was in the eighth grade, he was 10 years old (3 years younger than the average eighth grader). He came from a family with a high socioeconomic background; his father was a lawyer, and his mother was a teacher. Superior in math, E received his bachelor's degree at the age of 16 and his Ph.D. 2 months shy of his 19th birthday. E was described as being well-adjusted socially and having friends.

Case Study on Twin Boys

In addition to his case study research conducted with Jenkins and Theman, Witty collaborated with Anne Coomer, a psychologist at the Bureau of Child Study, Chicago Public Schools. In 1955, they published a case study of highly gifted 12-year-old twin boys, indicating that the two boys had IQ

scores of 190 and 195 on the Stanford-Binet. The boys also had a 7-year-old sister who scored a 148, causing the authors to note that “her performance was by no means so outstanding as that of her brothers” (p. 106). The boys were both described as attractive, and both learned to read at age 3. They attended public school and were double promoted when they entered. The twins had a variety of interests and reportedly read as much as possible when they found a new interest. Both boys were talented writers and hoped to enter the law profession like their father. The authors concluded that,

> boys such as these twins, fortunate in the endowment of unusually high mental ability as well as in security and motivation and in a stimulating home, are among the nation's most valuable resources. Such children should be identified early, as have been these boys, and should be encouraged to develop their potentialities in order to make their greatest contribution to society. (p. 125)

Quiz Kids

Quiz Kids, a popular radio program during the 1940s and 1950s, featured children of advanced aptitude who competed in a quiz format against one another for savings bonds. Special guests such Bob Hope and Bing Crosby or professors from nearby universities served as quizmasters. Debuting in June 1940, children were selected from the greater Chicago area based on their IQ's and questionnaires regarding their hobbies, family life, and school experiences (Jolly & Bruno, 2010a). Witty was an early supporter of the program, feeling that it provided a challenging opportunity and platform for talented youth to exhibit and extend their abilities. *Quiz Kids* also gave millions of children who listened to the program “stimulation,” with some teachers even assigning it as homework (Jolly & Bruno, 2010a). In a more official capacity, Witty served as an advisor to the *Quiz Kids* program, undertook case studies of the participants, and “gave legitimacy to the program” (W. Barbe, personal communication, December 14, 2012).

Additional Research

In the April 1948 issue of *Understanding the Child*, Witty reviewed the research conducted over the past 30 years, including Terman's studies, the

school's role, play activities, personality development, vocational/marital adjustment, college attendance, and curricula. He noted:

> Studies show that from 1920 to 1940 scarcely a beginning was made in recognizing and providing for especially bright pupils. During World War II educational facilities were curtailed sharply and opportunities for gifted children were affected adversely. It appears that the greatest shortcoming of public school systems today is their failure to recognize and conserve human ability and talent. We need better prepared teachers, more abundant and varied materials of instruction, and generally improved conditions for learning in order to avoid further waste of our richest human resource—bright and gifted children. (Witty, 1948, p. 40)

At the end of the 1940s, Witty (1949) summarized the recent past and current state of gifted education and called for challenging materials and improved conditions for gifted students. In a *New York Times* interview, Witty asserted that a "moderate" amount of acceleration was justified for gifted students, but indicated that enrichment programs also would be beneficial, as they would help alleviate the time spent in classes in which the material had already been learned (Eckel, 1950).

The same year he edited *The Gifted Child*, Witty wrote an article similar to a chapter that appeared in his book (it even had the same title). Witty (1951b) discussed the "Nature and Extent of Educational Provisions for the Gifted" in an article that appeared in *Educational Administration and Supervision*. In 1952, another article appeared in the same journal, focusing on students who had participated in the *Quiz Kids* program. The study looked to ascertain the relationship of a type of recognition (selection for and participating in the *Quiz Kids* program) to the development/adjustment of these students. In 1951, questionnaires were sent to students who had participated in the program three or more times and focused on education, vocations, hobbies, marriage and family, recognition and awards, and attitudes surrounding the participation in the program. A total of 41 forms were returned. Respondents were avid readers, and they enjoyed novels and plays as well as biographies and autobiographies. Witty (1952) found that the participants "agreed that the neglect of the above-average or gifted pupil

is great at the present time, and that the public school is the single great institution that has the opportunity to correct this situation" (p. 271).

In 1953 (four years before the launch of Sputnik), Witty provided an overview of the gifted child in *Exceptional Children*, the fifth in a series of journal articles that discussed students with exceptionalities. Witty argued that the United States had neglected one of its greatest resources: gifted students. He felt these students should be the country's future leaders in business, education, journalism, labor, scientific research, and government. A year later, a hopeful Witty (1954) noted a resurgence of interest in gifted education in the past 8 years: People were more interested in providing for gifted students in the regular classroom. He discussed various programming options and focused on acceleration: "During the past thirty years, acceleration or grade skipping has again and again been proposed as a desirable way of meeting the educational needs of the gifted. Once again it is being recommended and defended" (Witty, 1954, p. 228).

In the mid-1950s, Witty (Witty & Bloom, 1954, 1955) published articles that focused on gifted students and science, both of which appeared in *Exceptional Children*. In Witty and Bloom's (1954) article, they noted that a "recent resurgence of interest in gifted or 'rapid learning' pupils has included emphasis on stimulating leadership in science" (p. 244). The article highlighted of a number of science programs found in schools across the country. In 1955, Witty and Bloom mentioned the increasing interest in special education, including services for the gifted and the need for every student to meet his or her potential development in school. They cited the fact that recent publications by Witty, Hollingworth, and Terman had helped lead to the renewal of current interest in the type of recommendations made since 1925. They argued that "the question is not whether provision should be made for the gifted but rather *how* it can best be offered" (Witty & Bloom, 1955, p. 10). Witty helped provide leadership to others in the field by focusing on meeting the educational needs of all students, including the gifted.

Witty also wrote a chapter on "Identifying and Educating Gifted and Talented Pupils," which appeared in *Creativity of Gifted and Talented Children* (Witty, Conant, & Strang, 1959). In it, he focused on the concept of creativity and suggested that the definition of giftedness be expanded: "Perhaps it is desirable to broaden our definition of the gifted and to consider as 'gifted' any child whose performance, in a valuable line of

human activity, is consistently or repeatedly remarkable" (Witty, 1959b, p. 10).

In *School and Society*'s special issue on the academically talented, he provided an overview of various acceleration and enrichment programs for the gifted (Witty, 1959a) and noted how many gifted students remained unidentified despite the renewed interest in the education of the gifted during this period. He also argued that even with "a heartening interest in the education of academically gifted pupils, it is regrettable that so little has been done to meet the needs of potentially gifted pupils in various areas of creativity, as well as in social leadership" (Witty, 1959a, p. 167).

Witty continued to add to the literature base during the last 15 years of his life. He also combined his research interests in gifted education and reading. Witty suggested that reading choices could help gifted children tackle personal and social problems including those linked to self-identity or esteem (Witty, 1963). In 1967, at the 14th annual meeting of the National Association for Gifted Children, Witty presented an address titled, "The Gifted Child in 1967." In it, he chronicled the advances made in the field since the publication of *The Gifted Child* in 1951. He highlighted the increased interest in gifted education and the expanded concept of giftedness (Witty, 1967). In *Reading for the Gifted and Creative Student*, Witty (1971) served as editor and contributed his own chapter in which he encouraged teachers to provide a wide range of reading choices for gifted and creative students. He also promoted that these children "prepare, read, and share their own 'books'" (Witty, 1971, p. 13).

Contributions to Literacy

Witty's studies on reading were influenced by his work on individual differences and creativity, which can be seen in his approach to diagnosing and treating reading disabilities. He considered "reading as a thinking enterprise—demanding the use of creative intelligence in situations inextricably associated with the total complex development of the growing child" rather than the commonly accepted and disparate practices of the time that included vocabulary drills, devices to help practice "appropriate" eye movements, and phonetic exercises (Witty & Kopel, 1936, p. 187).

As with many psychologists during World War II, Witty was called upon to lend his capabilities to the war effort. Due to his expertise in literacy, the

Army requested Witty devise a program of reading instruction for the many soldiers who were illiterate, non-English speaking, or educationally limited (Witty & Goldberg, 1943). His character Private Pete, a soldier in a Special Training Unit, engaged in activities to which many other soldiers could relate, and it was hoped that soldiers who went through this training would reach a fourth-grade reading level (Witty & Goldberg, 1943). Witty is recognized as being the first to include fictional characters to whom adults could relate while learning to read.

Due to his work, Witty was considered an authority in reading and was asked to become a member of the International Council for the Improvement of Reading Instruction (ICIRI) in 1949; he served as its president from 1953–1954. Witty also served as a board member of the National Association of Remedial Teachers (NART). In 1955, ICIRI and NART merged to form the International Reading Association (IRA; Jerrods, 1977). IRA is currently considered one of the foremost professional organizations on reading research, with 70,000 members. Even today, the IRA presents two awards in his honor, the Paul A. Witty Outstanding Literature Award and the Paul A. Witty Short Story Award (Robinson & Clinkenbeard, 2008).

As television viewing emerged in the mid-20th century as a major source of entertainment for American families, Witty became one of the first researchers to explore its influence on children. Educational programming was still emerging, but Witty felt that quality educational television viewing coupled with constant and increased amounts of reading presented positive consequences for children. He acknowledged that television had permanently and "profoundly changed the way children learned and were entertained" (Jolly & Bruno, 2010b, p. 17).

Conclusion

Witty's papers are housed at Northwestern University's archives in Evanston, Illinois. The papers were given to the university by Dr. Walter Barbe, former student, friend, and long-time colleague of Paul Witty. The files contain teaching materials, papers pertaining to his service to the U.S. military, correspondences, and research and consulting files. Unfortunately, the papers do not reveal much in the way of Witty's early childhood or

personal life. The files do contain documents such as dry cleaning and drug store receipts, the latter for his diabetic medicines and supplies.

What Witty's archival collection and his publications reveal is a scholar and gentleman dedicated to advancing the educational needs of gifted children. He was one of the first researchers in the field to seriously advance the idea that students of color were to be found in the ranks of high intelligence, which ran counter to the standard belief during the first half of the 20th century. Witty encouraged challenging educational opportunities for all gifted children and was active in advocating on their behalf.

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11

DR. MARTIN D. JENKINS

A Voice to be Heard (1904–1978)

Joy Lawson Davis

> The wind was just right on that day; the Captain and his team were ready. This was the day he had been waiting for, and he was calm and confident. Today, he would do something he had never done before. He'd break the record. As confident and self-assured as ever, he knew that today was his last opportunity. He was entered into several individual competitions at the district track meet, and he was ready. Focusing on his goal, when his event was called, he went to the line. One by one, he broke three records that day in the 50 meter dash, 100 meter dash and 220 meter. That day was the first, but he believed certainly not the last, that the name of Martin David Jenkins would go down in history.
>
> —(Wiley High School, 1921, p. 76)

Providential Beginnings

At the turn of the twentieth century, scholars and politicians alike were wrestling with a new America. Reconstruction had ended, and race relations were coming to the fore of the national conversation. Sociologists and politicians were embroiled in contentious discussions that would shape the nation's future development. Amidst the controversies were the egregious theories perpetuating the belief that persons of the Negro [1] race were intellectually inferior and thus, not deserving of full rights and equal opportunities alongside their White peers in American society (Thomas, 1982). Entering this dialogue were a small group of Black scholars, some supported by White mentors who themselves joined the cause of disproving theories of racial inferiority. These theories presupposed that individuals, based on their skin color and Negro bloodline, were incapable of reaching the upper limits of mental ability ascribed to gifted individuals.

This broadening base of scholars recorded some of the first publications to be written about the phenomenon of giftedness in Negro students. Among this group of early scholars were Howard Mann Bond and Lillian Steele Proctor, who studied at the University of Chicago and produced some of the initial studies related to the examination of giftedness in the Negro population (Bond, 1927; Proctor, 1929).

It appears to be providential, therefore, that in 1904, Martin David Jenkins was born and by the 1920s was of an age when he may have been aware of early civil rights activists and scholars like Bond and Proctor. Martin was the only son of David W. and Josephine Jenkins. David Jenkins, a very prominent engineer, was the first Negro bridge contractor in the state of Indiana (*Indianapolis Recorder*, 1941). Being a self-employed Negro at the turn of the century was extremely uncharacteristic of the majority of Blacks in Terre Haute. Both David W. Jenkins and his wife, Josephine had attended college, thus, the Jenkins family were among a small group of middle-class Blacks living in Terre Haute during this time period. David W. Jenkins served as an early leader in the local chapter of the National Association for the Advancement of Colored People (NAACP), later becoming president of the Indiana State NAACP, a role for which he was posthumously honored in 1967 (*Baltimore Afro-American*, 1967). With such a role model, young Martin understood the value of becoming well-educated and of sharing one's gifts with his community on a very personal level.

After attending the segregated Booker T. Washington Middle School, Martin entered the racially integrated Wiley High School in Terre Haute. His exemplary character and scholarship was noticed early at Wiley High School, the city's largest high school in 1919. Attending Wiley with Martin was a small group of Black students, a few of whom like Martin were very successful at Wiley and later in their chosen careers (McCormick, 2006).

As a young student, Martin distinguished himself as exceptional. He demonstrated his persistence and ability through his leadership on the track team; the majority of his teammates were White. His high school yearbook portrays him as captain of the track team that included three other African Americans among the team members (*Wiley High School, Class of 1921 Yearbook*, p. 76). During his senior year, as captain of the track team and its top sprinter, Jenkins set school records in three events—the 50-yard dash (5.6 seconds), 100-yard dash (10.2 seconds), and the 220-yard dash (22.0

seconds). He then won the district track meet in the 100 and 220 to advance to the state finals (*Wiley High School, Class of 1921 Yearbook*, p. 76–77).

Upon graduation from Wiley High School, Martin left home for Washington, DC, to enter an engineering program at the prestigious Howard University, one of the nation's oldest and most highly regarded historically black colleges and universities (HBCU; Jenkins, 1942). Four years later, in 1925, he graduated from Howard with a Bachelor of Science in engineering and returned home to Terre Haute to work with his father in the family business. At the age of 25, Martin married Pherndena Elizabeth Lacy, and the young couple moved into their first home in Terre Haute (Department of Commerce, 1930). Settled in Indiana, Martin soon decided to enter graduate school at the Indiana Normal School for Teachers. Elizabeth, a Pittsburgh, Pennsylvania native, also was a graduate of Indiana Normal School.

Transition to Education and Research

With experience as a leader among his peers in high school and with an exemplary athletic and academic record, transitioning to the world of academia appeared easy for this young scholar. Within two years, Martin completed his A.B. degree program at Indiana Normal School and was ready to enter the education profession. It was during his time at Indiana that Martin came to the attention of Dr. Paul Witty, another Terre Haute native and alumnus of Indiana State University. Witty studied psychology, and later left Indiana to take a position at Northwestern University in Chicago. Witty's career in psychology and gifted education included his becoming a leader in the nation's first organization devoted to the support and advocacy of gifted children, the American Association for Gifted Children (AAGC, 1996), founded in 1946. Witty served as vice-president of the AAGC and edited *The Gifted Child*, the organization's first publication (Witty, 1951). (See the Jolly and Robinson chapter in this book).

Entering Northwestern as a graduate student, Jenkins found a university that nurtured his scholarship and provided support for his ideas, research, and the publications that were to follow. Northwestern was growing quickly and becoming an eminent research university. Well-endowed by private donors and founded by a group of Methodist ministers, Northwestern opened its doors early to students from different races and religions.

In 1931, Jenkins took his first teaching position in higher education at Virginia State College (now University); a year later, he went to Cheney State College in Pennsylvania to take another teaching position. During this time period, he was completing his requirements for his master's degree at Northwestern University in Chicago, which he earned in 1933. After completion of his master's degree, he immediately entered Northwestern's doctoral program and began his studies and research with Paul Witty. Upon completion of his doctoral degree, Jenkins took his first administrative position as registrar at North Carolina Agricultural and Technical College (NCA&T) in 1935. He remained at NCA&T until 1937, when he returned to Pennsylvania to accept a position as Dean of Instruction at Cheney State College for a brief period of time. All of Jenkins' teaching and administrative positions were at HBCUs. It is important to note that during this time period, African American faculty rarely had opportunities to teach at predominately White institutions—even those who, like Jenkins, had been trained at predominately White institutions.

In 1938, Jenkins began his longest tenure to date as a professor of education at Howard University, where he served from 1938 to 1948. While serving at Howard University, Jenkins was commissioned by the Charlotte, North Carolina, NAACP to conduct a survey of the schools in an effort to evaluate the unequal conditions of school segregation (Jenkins, 1948b). During this time, Jenkins also continued studying giftedness in Negro children, in particular the highly gifted child. This focus on highly gifted Black students was very unique for the 1930s and 1940s.

Analysis of Critical Works

As a graduate student, Jenkins committed himself to the task of providing valid evidence that Negro children could indeed take traditional intelligence tests and score in the upper limits of ability. This task became a passion. Beginning as a graduate student, Jenkins devoted over 15 years of scholarship to reviewing previous studies in which he collaborated with others in his own studies and carefully published his work. While working against a tide of scholarly and political viewpoints to the contrary, Martin D. Jenkins published 10 scholarly works singularly devoted to the topic of high intelligence in Negro children and youth. The very act of publishing such papers during a time when Negroes were assumed to be of lesser

intelligence than White children and youth, demonstrates the vigor and tenacity of Jenkins.

Jenkins' adversary, Lewis Terman, frequently regarded as the “father of gifted education,” studied individuals with high measured intelligence in a large sample during the early 1920s (Davis & Rimm, 2003). Terman assessed students using the McCall Multi-Mental Scale (a group test) and later, the Stanford-Binet Intelligence Scale, a test that he was responsible for designing with students who scored at the higher ranges on the McCall (Terman, 1925). Terman's sample was largely White males, with only a few of other races represented, including one Black student (Terman, 1925).

Unlike the samples studied by Terman, Jenkins purposefully and judiciously sought out Negro students for his work. Terman's longitudinal studies have often been questioned as to fairness given the socioeconomic and racial makeup of the sample of largely middle-class White males whose families and social groups could provide and enable their success over time (Kaufman, 2009). Jenkins' papers, comprehensive in nature, included the collection of family history, developmental milestones, educational placement, academic achievements, peer involvement, family cultural background and, most importantly in an era of theories of racial superiority and eugenics, family racial descent (Jenkins & Randall, 1948; Witty & Jenkins, 1935).

Jenkins' probe into the racial descent of his subjects uniquely enabled findings that heretofore had not been discussed or documented. Jenkins specifically asked parents of his subjects about their children's Negro heritage. In the case of the young girl, “B,” whose measured IQ on the Stanford-Binet Scale was 200, the mother responded that her daughter had no White blood on either parental side (Witty & Jenkins, 1935). This revelation in a research study was the first time any scholar documented a highly gifted Negro student who was without any Caucasian blood, and for the time and for the field that was a remarkable and critically important discovery (Kearney & LeBlanc, 1993).

In subsequent years, Jenkins continued to pursue this research interest, spe-cifically searching for students through contacts in Washington, DC; Cincinnati; New York; and other Northern cities. His deep concern for the future of these highly gifted children of color is noted in his following comment:

> … these cases bring into sharp focus the limitations which our society places on the development of the highly gifted Negro. These children are nurtured in a culture in which racial inferiority of the Negro is a basic assumption. Consequently, they will experience throughout their lives, educational, social and occupational restrictions which must inevitably affect achievement and motivation. Wide individual differences, of course, are to be anticipated in reaction to this condition. (Jenkins, 1943, p. 165)

Significance of Jenkins' Work to Equity in the Measurement of Intelligence

Jenkins was relentless in his pursuit of evidentiary material for dissemination among the wider scholarly community to validate his belief that superior intellectual ability existed among Negroes. To locate subjects for his studies, Jenkins employed a purposeful search process to find gifted Negro students, setting a precedent for "talent spotting," a strategy used today by scholars and advocates to increase the numbers of racially and culturally diverse students identified for gifted programs and services (Briggs, Reis, & Sullivan, 2008). His most critical work spans a period of 16 years, from 1934–1950. His dissertation, entitled, *A Socio-Psychological Study of African-American Children of Superior Intelligence*, was a review of the previous research examining intellectually superior Negro children beginning as early as 1929 (Jenkins, 1936). From 1934 to 1950, Jenkins' work had a singular focus—to demonstrate that giftedness existed in the Black community—and thus there was no merit to the viewpoints of scholars who argued otherwise (e.g., Bruner, 1912; Ferguson, 1916).

Jenkins' studies provided data and evidence comparing gifted characteristics both in behavior and through quantitative measures of Negro children with those of their White peers (Jenkins, 1948a; Jenkins, 1950; Witty & Jenkins, 1935). This set of scholarly works set a precedent for the field in the area of intelligence measurement of culturally diverse students. Most of Jenkins' work was published in the *Journal of Negro Education*, which at the time may not have been as highly regarded as other, more mainstream research journals. Thus, the accessibility to opportunities for publication in mainstream scholarly journals may have also contributed to

the limited awareness of Jenkins' research in the broader educational community.

The Remarkable Case of "B": A Profoundly Gifted Negro Girl

Most notable among Jenkins' research and writing is the publication of the case study of "B," a girl from Chicago whose Stanford-Binet IQ score was measured at 200 at the age of 9 years and 4 months (Robinson & Clinkenbeard, 2008; Witty & Jenkins, 1935). The article was co-authored with Paul Witty, Jenkins' mentor. This case study began by noting that in earlier published accounts by Terman and Hollingsworth of high IQ students who had tested at or above 180, there had "not appeared, in so far as the writers know, a published account of a Negro child testing at these extraordinary levels" (Witty & Jenkins, p. 118).

The study of B was a descriptive case study, providing detailed responses from the young student to items on the intelligence test as well as commentary from the child's mother. Jenkins' detailed descriptions report a child who gave rapid responses, made rich associations, and was not pleased with her own performance. This case study also provided a detailed accounting of the girl's developmental history, school achievement, performance on other instruments in the battery of tests administered by the authors, her interests, peers, and her home life. When teachers were asked to nominate (a) the most intelligent pupil and (b) the best student, B was not nominated. Instead, the teacher nominated a girl as the "most intelligent" who was approximately four years older than B and who had scored 100 on a group test (Witty & Jenkins, 1935, p. 121).

In an examination of the family context, Witty and Jenkins (1935) described B's parents as above the average in social status, as the mother was a teacher and the father, an electrical engineer, who had done some college teaching. The extended family was also described as having unusual abilities and had occupations in professional and service careers. The authors noted that "without a doubt the family background indicates superior heredity" (Witty & Jenkins, p. 123). Conversations with the child's mother offered further proof of the exceptional behaviors B demonstrated on a daily basis. Her mother reported that she expressed her thoughts in "full sentences" almost from the beginning of her language development, had an extensive vocabulary, and was reciting nursery rhymes at the age of

two (Witty & Jenkins, p. 122). B was grade accelerated, having been double promoted and at the time of the study was in the fifth grade. Most remarkable about this case was the authors' probe into the girl's racial composition. Others had argued that Negro blood was a limiting factor in high intelligence (Terman, 1925). In response to the authors' query into racial descent, the authors specified that "the mother reported 'B' to be of pure Negro stock. There is no record of any white ancestors on either the maternal or paternal side" (Witty & Jenkins, p. 123).

For the first time in psychological assessment history, evidence was provided that a pure-blooded Negro child demonstrated superior intelligence and therefore, through a systematic search, as done in this study, other Negro children of high IQ could be found. Witty and Jenkins go on to discuss the merits of the Stanford Binet as an IQ test and importance of the test for use in examining "capable Negro children" (Witty & Jenkins, 1935, p. 118). The researchers conclude their manuscript with a comment regarding the importance of the students' case as related to the future identification of highly gifted students from any population, as "it demonstrates that we may discover extreme deviates in any school population, unrecognized and denied the types of educational experiences which are necessary for their best development, as well as for the best interests of the social order" (Witty & Jenkins, 1935, p. 124).

Other Research and Publications, 1948–1950

Nearly 15 years after the publication of his first work in the intelligence testing of Negro children, Jenkins co-authored a paper analyzing data acquired from the U.S. Department of Education. These data included demographic details of Negro students who were attending college in various universities in both the North and the South (Jenkins & Randall, 1948). The study entitled "Differential Characteristics of Superior and Unselected Negro College Students" provided Jenkins and Randall with an opportunity to extensively examine and compare student potential as measured by intelligence tests, family background including income levels, parental occupations, and impact of geographic region on preparation for college. Results of the data analysis suggested that American Negro students originating from the North were better prepared for success in higher education than their peers originating from the South. Study results

also were notable for reporting that even students from “humble beginnings” whose parents were not well educated had potential for high performance on intelligence tests and for success in higher education (Jenkins & Randall, 1948).

Jenkins continued his study of giftedness within the Negro community and concluded this line of research with a prophetic manuscript articulating the problems and needs of Negro gifted youth that distinguished the differentials between the needs of the Negro gifted learner and those of their White counterparts (Jenkins, 1950). In this last paper, entitled “The Intellectually Superior Negro Youth: Problems and Needs,” Jenkins specified six problems that continued to limit the educational opportunities of gifted Negro children. Three of the six problems that Jenkins addressed in this paper were (a) the superior Negro student is less likely to attend a school that will serve his or her academic needs; (b) the Negro student is less likely to be identified as superior as compared to his or her White counterparts; and (c) the impact of racial concerns on the lives of intellectually superior Negro students are likely to have them pre-occupied with race to their own detriment.

In the 1950 paper, Jenkins stated that “race is the single most important factor in the life of any American Negro” (p. 327). Jenkins' writings, when more closely examined, place him within a small group of early scholars in gifted education who shaped the views of the field related to addressing the needs of those students most overlooked and marginalized throughout our nation's history. This paper very clearly articulated the critical issues that gifted African American children and youth faced during Jenkins' time as they were seen as less able than other gifted youth. Unfortunately, high ability students of color continue to face these same issues today.

Martin D. Jenkins, College President

Jenkins' career trajectory eventually led him into administrative positions in higher education. After having served on the faculty and in minor administrative roles at other colleges, Jenkins accepted an appointment as president of Morgan State College in Baltimore, Maryland, in 1948 (African American Registry, n.d.). In 1969, Morgan State was selected as a model liberal arts program by the Middle States Association of Colleges and Schools and ranked by a *Newsweek* poll among the top 10 African

American colleges and universities in the nation (Morgan State University Alumni Association, n.d.). As a college president, Jenkins also began lecturing at colleges and universities around the world on topics related to his expertise (African American Registry, n.d.).

President Jenkins worked judiciously to provide Morgan State with the resources needed for the success of his students. Even with limited resources, Jenkins reached out to external funding agencies to improve program offerings. As President of Morgan State College (now University), Jenkins set early goals of increasing the number of Black faculty, establishing an advanced level of scholarship in courses, and initiating new programs for students. Jenkins improved both the physical plant and educational standards during his tenure at Morgan State. Among the new programs implemented were the Institute for Political Education, the Urban Institute, and the Graduate School (Morgan State University Alumni Association, n.d.).

At the beginning of his tenure, the country was on the verge of the Civil Rights Movement. While progressive in his attempts to increase opportunities for scholarly work at the university, Jenkins was seen as otherwise conservative. On one occasion, President Jenkins demonstrated the lengths to which he would go to protect his students with his strongly held conservative beliefs. In March 1949, Jenkins sent an invitation by telegram to Dr. W. E. B. Du Bois, internationally renowned Black scholar and political activist, to invite him to be the 1949 Commencement Speaker (Du Bois & Aptheker, 1978, p. 257). A short while later, after having heard of Du Bois' involvement with political activity that Jenkins deemed inappropriate and questionable, Jenkins withdrew the invitation. The telegram sent to Du Bois is indicative of Martin Jenkins' conservatism and his willingness to stand firmly by his beliefs.

> [Telegram]
> Baltimore MD,
> April 29, 1949
>
> *Dear Dr. Du Bois:*

I am writing to withdraw our invitation to you to deliver the Commencement Address at the Commencement Exercises at Morgan State College on June 6, 1949. This invitation was extended to you as a tribute to your outstanding contributions in the field of scholarship. You were among the first of the great Negro scholars, and you have been for many, many years a symbol and a source of inspiration to the younger Negro scholars who are attempting to follow in your footsteps. Now that you are approaching the end of your career, we thought it desirable, particularly in view of your Baltimore residence, to present you in person to the members of our graduating class.

Your appearance with Mr. Paul Robeson at the recent World Peace Congress held in Paris and, particularly, your failure to condemn his treasonable statement made at that meeting have linked you in the public mind with the Communist movement in this country. I do not deny you the right to your own views. I feel, however, that if you were to speak at Morgan State College, even on a nonpolitical topic as you had planned, it would give the appearance of our being in sympathy with your general views. As a matter of fact, we are far from being sympathetic in this matter. I think that Mr. Robeson's views and approach are to be severely condemned. I regret very much that it has been necessary for us to take this action.

Sincerely yours,

Martin D. Jenkins

Jenkins later received a response from Du Bois' secretary indicating that the letter was indeed received and would be transmitted.

Jenkins' views were not always accepted, but he expressed them and initiated programs he believed to be important for the broader mission of developing a premier urban institution of learning (The Crisis, 1968). Jenkins also actively promoted racial integration of Black colleges, as he believed that an integrated university setting could better improve all students' preparation for success in an integrated society (Jenkins, 1952, 1958). In 1964, Dr. Jenkins was honored as a Distinguished Alumnus by Indiana State University. His scholarship, national and international

speeches, and writings earned him honorary doctorates from the University of Liberia, Delaware State College, Howard University, and Johns Hopkins University, among others. After his retirement as president of Morgan State in 1970, he became the director of the Office of Urban Affairs for the American Council of Education (African American Registry, n.d.).

Upon his death in 1978, Jenkins' life work was memorialized by the Black higher education community who came from across the nation to attend the funeral service on the campus of Morgan State University. One speaker, the President of Howard University, said that Jenkins "had an enviable record, a brilliant mind, and he continued to fight the fight of racism" (*Baltimore Afro American*, 1978, p. 5). Later during the service, Andrew Billingsley, who was President of Morgan State, described Jenkins as "a warrior who pushed for excellence and his dream was to have an interracial urban university of the first order" (*Baltimore Afro American*, 1978, p. 5). Many speakers followed who echoed high regard for the life and work of Martin David Jenkins. Table 11.1 provides a listing of important milestones in Dr. Jenkins' life and career.

TABLE 11.1 Lifeline and Professional Milestones of Dr. Martin David Jenkins

1904	Born on September 11, to David W. & Josephine Miller Jenkins in Terre Haute, IN.
1921	Graduated from Wiley High School, Terre Haute, IN.
1925	Earned a B.S. degree in engineering from Howard University, Washington, DC.
1927	Married Elizabeth Lacy of Pittsburgh, PA (Elizabeth also went on to become a student at Indiana State).
1931	Earned A.B. degree in Education from Indiana State.
1931–32	Instructor at Virginia State College (now University).
1933	Earned master's degree from Northwestern University.
1934	Received a graduate fellowship at Northwestern University, the first of its kind awarded to an African American.
	Co-authored (with Dr. Paul Witty) and published his first paper titled "The Educational Achievement of a Group Of Gifted Negro Children."
1935	Earned doctorate from Northwestern University. Dissertation study entitled "A Socio-Psychological Study of Negro Children" was published in 1936.
1935	Co-authored (with Dr. Paul Witty) "The Case of B: A Gifted Negro Girl."
1935–37	Served as Registrar and Professor of Education, North Carolina Agricultural & Technical College.
1937–38	Dean of Instruction, Cheney State Teacher's College, PA.
1938–48	Professor of Education, Howard University.
1939	Published "The Mental Ability of the American Negro."

1948	Began tenure as President of Morgan State College Baltimore, MD Remained at Morgan State as President for 22 years until his retirement in 1970.2
	Co-authored (with Dr. Constance Randall) “The Differential Characteristics of Superior and Unselected Negro College Students.”
	Published “The Upper Limit of Ability of American Negroes.”
1950	Published “The Intellectually Superior Negro Youth: Problems and Needs.”
1955	Named to President Eisenhower's commission on Veteran Pensions.
1964	Received Distinguished Alumni Award from Indiana State University.
1970	Named Director, Office of Urban Affairs-American Council on Education in Washington, DC.
1974	The Martin David Jenkins Behavioral Sciences Center at Morgan State University dedicated in his honor.
1978	Died at the age of 73, in Washington, DC, of complications from a heart attack.

Closing Thoughts

Over a period of three decades, Martin David Jenkins, African American scholar, studied, researched, and published scholarly works related to the superior intellectual capacity of the Black race and to the increasing presence of Negro youth in higher education settings. These writings were indicative of his devotion to a cause that came at a time when the odds were against Negro scholars conducting research, having their work published, and being credibly considered worthy alongside their White counterparts (Thomas, 1982). According to scholars who have since examined the work of Jenkins, this essential body of work was overlooked not for lack of publication history or validity, but due to a general disregard for the work of a Black scholar who provided evidence of high intellectual intelligence of Negroes during a time when Negroes as a group were publicly denounced as being mentally inferior (Kearney & LeBlanc, 1993; Ryan, 1983; Thomas, 1982).

An examination of Jenkins' work provides specific analyses that set new standards for the field of gifted education. In particular, his focus on the capacity of Negro youth to perform at the upper limits on intelligence tests was significant and set a precedent for the work of scholars in the later twentieth century and beyond. Jenkins' work also uniquely demonstrated the use of alternative methods to recruit gifted learners from within the Black community, provided insight into the impact of the Black family and community on talent development, and clearly established “race” as an

important factor which posed certain societal limitations on the life chances of Negro children and youth, even those of high intellectual capacity.

This brief glimpse into the life and work of Martin David Jenkins demonstrates that his voice, without question, is one to be heard and highly regarded. The field of gifted education would do well to rewrite its history to ensure Jenkins' rightful place alongside his peers as a leader and exemplary scholar whose work should be examined as our field continues to address the challenge of eradicating the underrepresentation of African American and other students of color in gifted education and programs for advanced learners nationwide.

Note

1. The terms Negro, Black, and African American are used interchangeably throughout this chapter.

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12

CALVIN W. TAYLOR

A Man of Many Talents (1915–2000)

LeoNora M. Cohen, Kathy D. Austin, and Rebecca H. Odoardi[1]

> My catchword has been "creativity" more than anything else. You have to go after multiple things. So, another one of my catchwords is "multiple creative talents." I describe creative talents as the "history-making talents." If we're neglecting them, and not cultivating our youth, we're neglecting our future.
>
> —(Taylor, as cited in Seghini & Lloyd, 1993)

Calvin W. Taylor, scholar, thinker, and imaginer, devoted his life to the development of creative talents and abilities in all people. He worked to promote an educational system in which all students would be given the opportunity and support to develop their talents to the fullest. His doctoral work with psychologist L. L. Thurstone further defined *linguistic fluency* to include the subcategories of *ideational fluency* and *verbal versatility*, set the stage for his life's work in promoting the idea that there are multiple factors involved in human intelligence. He viewed talents as the *intellectual* or *mental abilities* recognized through the work of Thurstone (1938) and Guilford (1967). Taylor's work, along with the work of E. Paul Torrance and others, changed the fundamental conception of giftedness—that IQ alone was not sufficient to predict success in later life.

He insisted that multiple talents were the key to understanding whether someone would be successful and believed that education should concern itself with the identification and cultivation of all human talents. He felt that creative talents and their development through multiple-talent teaching

were needed to insure our productive future, stating, “Creativity has the power to transform giftedness to eminence” (as cited in Kim, 2009, p. 571). For Taylor, the development of one's talents had the potential to change the course of history (Kim, 2009).

In the realm of organizational effectiveness, Taylor cited the importance of finding the right environment to support the growth of creativity. His work in the field of creativity included measures of creative production in the scientific community and communication ability in the work place. Of equal importance was his fostering of the development of biographical predictors that would help forecast success in a variety of career paths. Taylor felt that the full potential of creativity required both physical and mental wellness. A related interest was the merging of architecture and psychology. Architectural psychology, a term he coined, described how architectural elements such as color, design, and space encourage innovation (Kim, 2009).

According to both James (personal communication, September 27, 2011) and Ellison (personal communication, September 22, 2011), former students of Taylor's, the work of Taylor and his colleagues in applied psychology had a huge impact on testing services and in determining what tests measured. The early work focused primarily on illustrating that the testing instruments used at the time assessed only academic abilities, which were insufficient in measuring the broad skill sets necessary in various occupations. These studies led to groundbreaking work in the field of talent development.

Family and Early Life

Taylor, the second of four children, was born to Elliott and Mary Taylor on May 23, 1915. His early years were spent in a privileged Mormon family in Salt Lake City, Utah. His father, an achiever with financial acumen, was involved in distributing Chrysler automobiles as well as in furniture manufacturing and banking. Elliott was a stern, supportive father, and Mary was a loving mother, who provided a nurturing environment for her children (N. Taylor, personal communication, September 14, 2011).

Because Taylor's great-grandfather was an early Mormon Church president, young Taylor was afforded both status and privilege in the Mormon community. His religious background and upbringing were central

to his life, and he grew up to be a deeply spiritual man. His daughter, Nancy, indicated that Taylor's desire to find and develop all students' God-given talents came from the *Parable of the Talents* (N. Taylor, personal communication, September 14, 2011). Taylor shared the following:

> Do we have students focus solely upon our past heritage so they become like the third servant in the Parable of the Talents? He spent all his efforts in storing and safeguarding the one talent he had received so he could give it back in exactly the same form as he received it. For doing things this way, his master called him a slothful servant and he lost even that which he had because he had not put his resource to use so it would be increased by bearing new fruit. In this sense are many of the teacher-pleaser-regurgitator type of grade-getters really like the slothful servant, afraid to stretch their minds, and therefore not the kind of graduate students and scientists we need. (Taylor, 1982, p. 255)

Even though this parable was central to his beliefs and to his work, he compartmentalized his religion, seldom discussing his beliefs while teaching or with colleagues (I. Cornia, personal communication, September 20, 2011; C. E. Taylor, personal communication, September 11, 2011). Family and close friends knew Taylor as a humble man who believed in the inherent gifts in every person. He cared about the outliers and sought to find the talents and special qualities in all people (R. Odoardi, personal communication, September 9, 2011).

Education and Learning Experiences

Taylor had an IQ at or above 200, but he believed this intellectual measure was irrelevant compared to the creative talents evidenced in successful people (S. Taylor, personal communication, September 6, 2011). As a precocious child, he skipped several grades, graduating from high school in 1930 at the age of 15. He regretted skipping grades because he felt socially immature and physically small; however, he was happy in school (N. Taylor, personal communication, September 14, 2011).

Needing to earn money for college, Taylor joined a U.S. Geodetic Survey team shortly after turning 18, and he traveled throughout the western United States, including his beloved Montana. He spent five summers and one year

working as a surveyor and draftsman, living with various survey gangs including New Yorkers, Southerners, Texans, and “American Indians on their reservation” (Taylor, 1994, p. 1). He was exposed to many different cultures and points of view, which broadened his perspectives. The Montana experience became a metaphor that would shape his worldview (Taylor, 1994).

Taylor attended the University of Utah as an undergraduate, trying to find his own niche. He considered various majors, including mathematics, engineering, and chemistry but was convinced by his mentor, Neil Van Steenberg, a professor of psychology, to major in psychology (Richardson Creativity Award, 1971). Taylor took seven years to finish his bachelor's degree at the University of Utah (1938), one year to complete his master's degree at the same institution (1939), and another seven years to complete his doctorate at the University of Chicago (1946), where he was a member of Phi Beta Kappa. He searched continuously for what would be, in his estimation, a worthwhile career—“the only one of a kind” (Taylor, 1994, p. 1).

During World War II, Taylor attained the position of Military Chief in the Military Personnel Subsection of the Army Personnel Research Program. He was in charge of Army-wide trade testing, which included testing and skipping-of-training testing related to overall performance. Taylor continued with the Army after the war as a reserve officer, retiring as a lieutenant colonel (Obituary, 2000a; Richardson Creativity Award, 1971).

Taylor's academic work at University of Chicago was under the mentorship of L. L. Thurstone, a leader in quantitative mental measurement and testing. Taylor (1939) aware of Thurstone's work had cited him in his master's thesis. Taylor brought his “basic-background in measurement, mathematics, physiology and neurology” (Taylor, 1986b, p. 309) to his doctoral studies. Thurstone's (1934) “Vectors of the Mind” stimulated Taylor's interests in creativity. It was at this time that he developed the seeds of his theories on multiple talents (N. Taylor, personal communication, September 14, 2011). Through his doctoral research, he isolated two new factors (creative talents), which he called *ideational fluency* and *verbal versatility*. The identification of these factors added to Thurstone's theories and culminated in the publication of Taylor's doctoral dissertation (Taylor, 1947). Taylor was recognized for his work and became a member of the elite group of psychometricians at the University of

Chicago (J. Renzulli, personal communication, September 26, 2011). From 1941 to 1942, while finishing his dissertation, he also worked as an occupational analyst in the U.S. Employment Service National Research Program, Division of Occupational Analysis, Federal Security (Taylor, 1964c).

Marriage and Children

Taylor married Dorothy Cope, his teenage sweetheart some 10 years his junior, on June 18, 1943, in Washington, DC. Dorothy was a nurturing mother who took care of home responsibilities, giving her husband the freedom to pursue his lifelong passions. Toward the end of Taylor's life, Dorothy became quite ill. He stopped his lifelong work to attend to her needs, but he died suddenly. She followed him in death a mere three weeks after he passed away (Obituary, 2000b; N. Taylor, personal communication, September 14, 2011).

Craig, Taylor's oldest child, born in 1945, was mathematically inclined and, in fact, graded his father's upper-division statistics students' papers while still in high school (C. E. Taylor, personal communication, September 11, 2011). Stephen, the middle child, born in 1948, was a star athlete and one-time NFL player. Taylor supported his son, traveling to wherever he was playing. When Stephen played briefly for the Dallas Cowboys, his father worked for the NFL helping players to discover their talents and designing their locker rooms (S. C. Taylor, personal communication, September 6, 2011). Nancy, the youngest, was known by all as her father's daughter. She helped her father collate papers and do other tasks at his office to earn money, and she played in her father's intellectual world, getting to know his famous colleagues. According to Nancy, her father “was the nicest person [she] ever met. He never said anything disparaging. He said, if someone does something you don't like, you have to find the good in them” (N. Taylor, personal communication, September 14, 2011).

The three children were encouraged to find and follow their talents. According to Stephen (S. C. Taylor, personal communication, September 6, 2011), their dad was not directive but observant. Like his sister, Craig helped organize and also attended many of Taylor's conferences, meeting important people and friends of his father. Craig shared that his father didn't

help with homework, which he said was good, as “I learned to do things on my own” (C. E. Taylor, personal communication, September 11, 2011).

Influences

The temporal, geographical, physical, and cultural resources and particularly the social relationships with mentors and other like-minded individuals are important in shaping the creative individual (Harrington, 1999). Along with Van Steenberg and Thurstone (Taylor, 1986a), an important influence on Taylor was J. P. Guilford, who was instrumental in calling for work on creativity (Guilford, 1950). Taylor found particular interest in Guilford's divergent production operations, as well as with Guilford's later works (Guilford, 1977, 1986).

Another major influence was Arnold Toynbee, who promoted the idea that creative efforts were history-making. Taylor used these very words in some of his publications when he called his creative/productive talents the “history-making” talents (Taylor, 1984, p. 108). Taylor valued the pioneering work of Anne Roe, a researcher at the Institute for Personality Assessment Research (IPAR) on the relationship between personality and occupation. Taylor also worked with Frank Williams who helped organize the Sixth Creativity Conference (described later).

E. Paul Torrance, a key scholar in the field, also affirmed Taylor's views that IQ is not a sufficient measure of giftedness and that outstanding achievements during a person's lifetime have little relationship to academic success (G. Bock, personal communication, September 16, 2011). John Holland, known for his work concerning vocational assessments, was another person who influenced Taylor. He, along with many other colleagues, helped with and participated in the aforementioned creativity conferences. Throughout the 1950s, 1960s, and 1970s, Taylor and his colleagues helped to shape new theories, programs, and way of thinking about creativity.

Teaching

Taylor began his university teaching career in 1946 at the University of Utah, where he taught courses in factor analysis, measurement theory, research and statistical techniques, test construction, creativity, human

engineering, industrial and personnel psychology, architectural psychology, and multiple-talent teaching. In addition, he helped initiate an interdepartmental doctoral program in counseling psychology with the National Institute of Mental Health and the Veterans Administration (Richardson Creativity Award, 1971).

Taylor's teaching methods were quite innovative. Robert Ellison described Taylor's classes as free-flowing; he encouraged his students to follow their own paths. Taylor's work in the psychology department at the University of Utah was legendary; however, because of his religious affiliation and his desire to stay close to his religious roots, he forfeited the opportunity to work at Ivy League schools where his work might have gained greater acclaim (D. Fox, personal communication, September 27, 2011).

Taylor's students often felt they were working with the *master*. Ellison shared that Taylor's coursework profoundly influenced him and ultimately led to his choosing industrial/organizational psychology as a career. For Ellison, Taylor was an incredible inspiration: “Taylor was a broad thinker; he engaged us and made it relevant” (R. Ellison, personal communication, June 4, 2011).

According to two of Taylor's other students, Stan and Jane Mulaik (S. Mulaik & J. Mulaik, personal communication, September 21, 2011), Taylor was a terrific major professor, generous, thoughtful, and always there to help and to give credit for the work one did with him. He encouraged students to do their best and to study what interested them. He liked to teach and felt he had something to offer. He wanted to be in charge but would bring out his student's talents by giving them opportunities to be productive.

Larry James, another student of Taylor's, stated,

> Dr. Taylor was a brilliant guy, wonderful to be around, but pretty busy. Basically the first two quarters of graduate school was reading. When I first walked into his office, Dr. Taylor handed me twelve books and asked me to read them and talk about them with Kahn Yagi, an older grad student. I had a question from reading and went to Dr. Taylor to ask it. He said, “Wouldn't it be great if I were a library?”
>
> I acknowledged, “I haven't done enough reading yet.”
>
> “No you haven't,” agreed Dr. Taylor.

> I still use that message with my students, and it has been an influence through my whole life—solve it on your own. (L. James, personal communication, September 27, 2011)

Taylor's students felt enlightened by the opportunities they had to listen to the noted individuals who came as guests to their classes to discuss aspects of creativity with them. Students also helped with and took advantage of the creativity conferences organized by Taylor and his associates (J. B. Seghini, personal communication, September 29, 2011).

Research Experiences

Taylor's early research in the 1950s dealt with issues surrounding psychological assessment. He was determined to find a measureable way to predict a person's future career success. From his doctoral work with Thurstone, he understood that academic success is not an accurate predictor of future work/career success (Seghini & Lloyd, 1993). The National Academy of Sciences (NAS) recruited him in 1952 to increase the efficiency in identifying applicants with the greatest potential for making creative contributions in science (Taylor, 1963b). In 1958, Taylor and several of his graduate assistants were awarded a research contract to study identification of communication abilities in military situations at Lackland Air Force Base in Texas (Taylor, 1967; Taylor, Smith, Ghiselin, Sheets, & Cochran, 1958).

Robert Lacklen, who was in charge of hiring NASA astronauts and other personnel, employed Taylor to work with him in determining the predictors of creative scientists. In the late 1950s, Taylor recognized the potential of biographical items as predictors of future performance. Ellison, who was working with Taylor, developed the first Biographical Inventory as part of his master's thesis (Ellison, 1959). From his work, *Biographical Inventory Form A* was developed and used by NASA to help identify scientific talent. This study (Taylor, Ellison, & Tucker, 1966) again validated claims that academic success was not a precise predictor of job success (R. Ellison, personal communication, September 22, 2011).

With funding from a number of influential federal departments, Taylor supervised numerous other research projects from the 1960s through the 1980s (Taylor, Ellison, & Tucker, 1966; Richardson Creativity Award,

1971; Taylor, Murray, & Ellison, 1971; Taylor, Smith, & Ghiselin, 1960; Taylor, Smith, Ghiselin, & Ellison, 1971). In 1963, during his tenure as a professor of psychology at the University of Utah, Taylor was approached by the Dean of the College of Medicine to come up with a better way to predict the future success of students who might be admitted into nursing and physician training programs (S. Mulaik & J. Mulaik, personal communication, September 21, 2011). Historically, the traditional measures for selecting physicians and nurses had little value in predicting successful performance in medical school or in the real world (Price, Taylor, Richards, & Jacobson, 1964). Through these studies, more accurate methods of choosing potential students for admittance into the University of Utah College of Medicine were devised and implemented. Although not widely accepted, they proved to be unusually accurate in predicting future success and are still in use today (R. Odoardi, personal communication, September 9, 2011; Price, Taylor, Richards, & Jacobson, 1964; Richards & Taylor, 1961; Seghini & Lloyd, 1993; Taylor, 1963a; Taylor, Nelson, & Price, 1974).

In addition to his work with the College of Medicine, Taylor was interested in promoting general wellness. He was approached to help design the then state-of-the-art St. Mark's Hospital. Taylor applied his work in architectural psychology to the new hospital design. He used his research and expertise in creativity to show hospital architects that color and room design played a significant role in patient wellness. Consequently, each floor was decorated with a different color scheme and design, patients each had a room to themselves, and each room had a window that could be opened to let in fresh air. He believed such environmental variables promoted health and wellness (Bailey, Branch, & Taylor, 1964; Seghini & Lloyd, 1993; Taylor, 1976; N. Taylor, personal communication, September 14, 2011).

Biographical Inventories

In addition to the work with NASA and the University of Utah, Taylor, Ellison, and colleagues worked on a series of biographical inventories related to career success. The initial work involved the development of 300 biographical information items that yielded a valid creativity score on graduate students at the University of Utah (Ellison, 1959). While this

initial research concerned adults, the team soon modified the survey instrument to predict academic success in schools. During the next 45 years, IBRIC staff would conduct research on the identification, development, and utilization of talent. Using forms A through Z of the biographical inventory, studies were conducted on various aspects of talent identification among scientists, engineers, nurses, artists, and students in Grade 1 through college.

In addition, Taylor's work with scientists and physicians led to the idea that giftedness and creative talents not only take many forms, but also, that academic success does not highly correlate with future abilities in one's career path. Through their cumulative research, Taylor, Ellison, and their associates discovered that a variety of talents were relevant for different career paths. In the study of creative scientists, Taylor (1982) identified talents of creative scientists as displayed in Table 12.1.

TABLE 12.1 Talents of Creative Scientists

Creative persons are more self-sufficient and need less supervision and guidance.	Creative persons are more resourceful.
Creative persons are more independent in making judgments.	Creative persons are able to tolerate a great deal of ambiguity.
Creative persons are more self-assertive, dominant, stable, self-accepting, and open to their own impulses.	Creative persons are likely to give unexpected responses and pioneer fearlessly at frontiers without trails.
Creative persons are more progressive and radical; more courageous, adventurous, and capable of taking greater risks.	Creative persons are deeply involved, thorough, and persistent in their work, playing with ideas to improve systems.
Creative persons are more complex and may stir up group sanctions against themselves because of their new ideas, viewed as threats to the status quo.	Creative persons need variety and prefer complexity, organizing things their own way.

Biographical Inventory Form U was designed and produced in 1976 to correlate the gifted/talented areas most often used in identification practices. It was an easily administered, 150-item, multiple-choice instrument that provided information pertaining to four score areas: Academic Performance, Creativity, Leadership, and Artistic Potential. Form U was found to be reliable in terms of its generating an Academic Score comparable to both intelligence tests (group testing) and academic achievement measures. In addition, Form U was determined to be both

culturally and ethnically fair. Form U also provided information to teachers and counselors regarding the development of specific programs to meet individual student needs (Murray, 1976).

In reporting on information from Form U, Taylor shared that schools and school districts ought to broaden their identification practices to include more students of talent (Taylor & Ellison, 1983). As IBRIC continued to fine-tune the forms used in gifted/talented identification, they found it important to add scores in the areas of Vocational Maturity (student planning for and interest in future careers) and Educational Orientation (recognizing the importance of education and the likelihood of staying in school) (Taylor & Ellison, 1983). The most recent version of the talent identification system, the Student Development System or SDS (Institute for Behavioral Research in Creativity [IBRIC], n.d.) has been used in a variety of educational settings in several school districts, mostly in Utah (R. Ellison, personal communication, September 12, 2011). Taylor emphasized that any gifted/talented identification system must consider not only a variety of assessments but also a variety of talent areas because, as previously stated, he and his colleagues determined these were more important to overall success than academic performance (Taylor and Ellison, 1983).

Calvin Taylor and the Utah Conferences on Scientific Creativity

One of Taylor's significant contributions to gifted education was the establishment and funding of 10 creativity conferences, which provided the exchange of important studies among key creativity researchers. In addition to the creativity conferences, he instituted more than a dozen University of Utah summer conferences for teachers focusing on the application of educational theory and research into practice.

Conferences on Scientific Creativity

During Taylor's work with the National Science Foundation (NSF) and perhaps to push back against behaviorism that “descended like a plague on psychological thought” (Taylor 1963b, p. xiii), Taylor secured funding from NSF for a series of three national research conferences on identification of

scientific creativity. The first conference, held in 1955, two years prior to the launch of Sputnik and the subsequent push to find creative scientists, showed Taylor's prescience. Taylor cobbled together funding for the additional conferences, a total of five being held in Utah.

TABLE 12.2 National Creativity Conferences

#	*Year/Place*	*Theme/(Reference)*	*Key Presenters (and C. W. Taylor)*	*Results/Further Study*
1–3	1955 1957 1959 Wasatch Mts., UT	Identification of Scientific (Taylor, & Barron, 1963a)	Frank Barron, Benjamin Bloom, Raymond Cattell, J.P. Guilford, Thomas Kuhn, Sidney Parnes, Anne Roe, Lewis Terman, Paul Torrance, others.	Further study on (1) environmental conditions and educational methods; (2) defining intellectual, motivational, and personality characteristics of productive scientists; (3) developing criteria for scientific creativity and measurable development.
4	1961 Chicago, IL	Progress and Potential (Taylor, 1964f)	John Holland, J. H. McPherson, E. Paul Torrance (2 others).	A stock-taking effort: called for new research on characteristics, environments, and especially outcomes (the criterion problem) that would predict creative behavior.
5	1962 Wasatch Mts., UT	Widening Horizons in Creativity (Taylor, 1964e)	J. P. Guilford, Robert Ellison, L. L.Thurstone*, Arnold Toynbee*, (others).	Wide dissemination on historical context, predicting creative behaviors in fields, and value of biographical inventories. Controversy re: drug-induced creativity.
6	1964 La Jolla, CA	Instructional Media and Creativity	J. P. Guilford, Frank Williams, 13 others	Honored J. P. Guilford.

		(Taylor & Williams, 1966)	from a variety of disciplines.	Interdisciplinary focus to construct new media so that more creative patterns of thought and learning are cultivated. Classroom applications.
7	1966 Greensboro, NC	Climate for Creativity (Taylor, 1972b; 1972c)	Frank Barron, J. P. Guilford, Abraham Maslow, Sidney Parnes, Anne Roe, William Shockley, E. Paul Torrance, 20 others.	Environments help or hinder creativity in schools and organizations. Importance of leadership in creating climates for creativity.
8	1970 Buffalo, NY	Humanizing Educational Systems (Taylor & Parnes, 1970)	Sidney Parnes, 20 researchers, 20 practitioners from schools and universities.	Joined with Parnes' Creative Problem Solving Institute. Focus on "educational engineering" of research findings into action programs in the colleges and schools, creating climates supportive of creativity.
9	1980 LaJolla, CA	Creative Talents are the History-Making Talents (Taylor, 1980a)	Frank Barron, Jacob Getzels, Brewster Ghiselin, J. P. Guilford, E. Paul Torrance, Arnold Toynbee, Frank Williams.	The role of creativity in history; all persons can learn to use their multiple talents; cultivation of all of a nation's known human resources through talent development.
10	1987 Salt Lake City, UT	Expanding Awareness of Creative Potentials Worldwide (Taylor, 1990c)	Dick Bird, Benjamin Bloom, Ned Hermann, Alvin Nicolai, John Raven, totaling 30 international researchers from diverse fields.	Was also the Seventh World Conference on the Gifted. Pursuit of multiple-competence-oriented educational programs, to change conceptions of talent and

	competence development in schools.

* Not present, but works included in conference proceedings as seminal to that conference.

The National Creativity Conferences

The creativity conferences are summarized in Table 12.2.

The 10 creativity conferences were breakthroughs because eminent researchers from across the world were brought together to share their work and to learn from each other. Taylor's efforts in obtaining funding for and in structuring these conferences were groundbreaking for the study of creativity. The conferences also encouraged collaboration, catalyzed new studies, and encouraged interest in the development of creativity worldwide.

Multiple Talents Theory—And Teaching

Throughout his life, Taylor's focus was on the development of what he called *multiple talents*. He postulated that if we are going to develop effective producers and contributors to society, then we needed to change our educational systems to nurture these types of behaviors in students. Instead of a focus on school grades as a predictor of success, Taylor suggested that career success was linked to concepts like "self-confidence, inner directedness, drive, discrimination of value, high self-sufficiency, aspiration to produce a quantity of research reports and a self rating on creativity" (Taylor, 1962, p. 594). At the time of his initial research, none of these kinds of skills were taught in schools.

Granite School District, Utah, was the first district to develop a program using Taylor's work. This project began with several research studies focused on determining the difference between multiple-talent centered classrooms versus traditional classrooms where there was little focus on talent development. In particular, the research done by Hutchinson (1963), Allington, Johnson, Williams, & Taft (1978) and Clark (1967) demonstrated the effectiveness of multiple-talent teaching at elementary and junior high levels. The idea was to create thinking classrooms instead of traditional *learning* classrooms (Allington et al., 1978). These research studies

generated interest from teachers both in the Granite School District as well as in nearby districts. Several staff development sessions, featuring Taylor as the speaker, introduced the first curriculum guides using Taylor's multiple-talent approach (Granite District Teachers, 1966, 1970a, 1970b).

During a staff development session in Granite, Taylor described a totem pole effect, the distribution of leaders in a classroom tied to specific tasks given by the teacher. Allington, a curriculum director in Granite School District, visualized the totem pole and drew what he imagined it would look like. This drawing, an example set of totem poles, became widely disseminated as a representation of Taylor's multiple-talent theory (Allington et al., 1978; G. Bock, personal communication, September 16, 2011; R. Ellison, personal communication, September 22, 2011; Taylor, 1978).

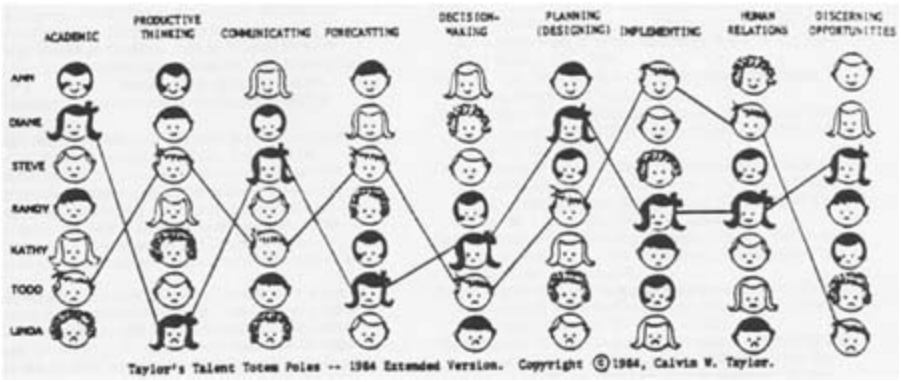

FIGURE 12.1 The Talent Totem Pole (Taylor, 1986b, used with permission.)

Based on the work done in the Granite School District, other talent development programs were initiated. Project Implode, a program begun in the Jordan School District, Utah, led to the production of the first formal multiple-talent curriculum book titled, *Igniting Creative Potential* (Stevenson, 1971). Taylor also expanded his list of talents to include implementing, human relations, and discerning opportunities (Taylor, 1986b). (See Figure 12.1)

Project Implode focused on three processes: divergent thinking, convergent thinking, and evaluative thinking, each of which was necessary for productive thinking in the areas of creativity, planning, communication, forecasting, and decision making (Taylor, Stevenson, Ellison, & Fox, 1973). The three processes, divergent thinking, convergent thinking, and evaluative thinking, were the foundation for this initial work. As the project

progressed, teachers noted that significant positive changes were occurring in both the structure of the classroom and in the attitudes of the students themselves (Taylor et al., 1973). Objectives were developed to measure the changes in the project school compared to those in control schools. The results indicated that Project Implode, with its emphasis on student talent development, statistically demonstrated the great value of the program. It not only provided alternative strategies for learning and the development of student potential but also included more traditional areas of student achievement. Taylor supported his assertion that,

> If we apply the multiple-talent approach in the educational process, greater numbers of our students will be more successful both in and out of school. A natural by-product will be an increase in each student's individuality. Each will experience and display his own unique profile across talents and will thus become more self-directed. Talents quite appropriately come at the center rather than at the periphery of our focus, for it takes talented people to solve our most difficult problems and to create a better world. (Taylor, 1968, p. 69)

In addition to the talent development aspects, Project Implode facilitated whole school change. In comparing the experimental schools with the other schools studied, student enjoyment of school, independent development, reinforcement of self-concept, classroom participation, democratic classroom control, career development, individualization of instruction, and multiple-talent experience were higher, indicating real differences existed between the educational atmospheres of the control and experimental schools. Results also indicated a higher level of performance for those students involved in the project in tests of talent development, non-intellectual measures, and also on tests of academic achievement. Indeed, using talent development strategies helped students become more engaged in school and also enhanced their academic performance (Taylor et al., 1973).

In 1976, Taylor began working with Frank Schneider, Assistant Superintendent of Schools in Mobile, Alabama, to launch talent development workshops throughout the Mobile area. Talents Unlimited (TU), based on Taylor's work, was initiated as a result of this work and provided a more formal organizational structure to his multiple-talent

approach to schooling (C. Schlichter, personal communication, September 30, 2011). During the 1980s and 1990s, thousands of teachers were trained in the Talents Unlimited model (D. Hobbs, personal communication, September 21, 2011).

Taylor continued to be concerned that schools placed too much emphasis on academics rather than on talent development. In response to the 1980s Outcome-Based Education movement, he developed Knowledge Outcome-Based Education (KOBE) and Talent Outcome-Based Education (TOBE) (Taylor, 1986a, 1986b). Taylor believed, "In this way, there is no need to debate knowledge versus talents or learning knowledge versus learning to function effectively" (Taylor, 1986a, p. 10).

Until the end of his life, Taylor continued to focus on talent development for all students. He urged his colleagues and gifted/talented advocates to make these efforts worldwide. He worked with gifted/talented coordinators from all over the country to suggest new talent-teaching ideas. He shared his new ideas and projects for research, and he even funded Brain-Talent Powers Press with the idea that new multiple-talent books, articles, and information would be produced and disseminated world-wide. The slogan for that company was, "Find and Ignite many Brain-Talent Assets in all Kids! Develop Brain-Talented and Brain-Using Kids to Gain and Retain Knowledge better and Yield the very best Brain-Trained Crop of Kids Ever" (Taylor, ca. 1992).

Final Thoughts: Rediscovering Calvin W. Taylor

Calvin W. Taylor was a brilliant and complex man. Those close to him found him to be a loving, caring person who recognized the good and the potential in everyone. He insisted that those around him have a "can do" attitude and delighted in asking tough questions. According to daughter, Nancy, "Dad sang a tune to a different drummer. He wanted everyone to succeed and find their confidence level, what you are good at. My dad was brilliant, an absolute genius but had idiosyncrasies of genius" (N. Taylor, personal communication, September 14, 2011).

Why Taylor's extraordinary work on creative talent identification and development is currently relegated to the back burner in gifted education circles may have been due to several factors: the rise of Howard Gardner's Multiple Intelligences, perhaps easier to grasp than Taylor's multiple

talents; No Child Left Behind, which heavily focused on reading and math, sacrificing other talents and interests in schools; the refocus on simple measurement, rather than talent development or asynchrony paradigms (Cohen, 1998); and the lack of funding for such programs. N Taylor (personal communication, September 14, 2011) noted also that his work is hard to read. His philosophy needed to be shaped, to be simplified and perhaps to be made more teacher-friendly But his message was to identify and develop an individual's strengths in order for them to find success.

It is hoped that reacquainting the readers with Calvin W. Taylor's large corpus of work and unique contributions in conceptualizing the importance of developing multiple creative talents and creativity will bring him again to the forefront of the field and that his legacy will be rediscovered.

Note

1. In writing our chapter on Calvin W. Taylor, we received a great deal of help and encouragement through interviews with the following:

- Family members, whose perspectives on their family and especially their father, provided us important background information and insights into his personality: His three children, Craig, Stephen, and Nancy; his cousin, Sharon Astin; and his niece and her husband, Cindy and Paul Nachtigall.
- Former doctoral students, Robert Ellison, David Fox, Lawrence James, and Stan Muliak, who shed light on Taylor as a teacher and guide as well as helping us understand the University of Utah context.
- Colleagues/researchers: Jane Abe, Ivan Cornia, Deborah Hobbs, Jane Muliak, Joseph Renzulli, Carol Schlicter, and JoAnn Seghini, who shared Cal's vision about the importance of talent development for all children.

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13

ILLUMINATING OUR UNDERSTANDING OF CREATIVITY

The Life and Legacy of E. Paul Torrance (1915–2003)

Thomas P. Hébert[1]

Introduction

> We were eating supper—Daddy, Mama, my sister Ellen, and I. I was 13 and shaving already. The mid-June day began before daylight with my helping to milk the cows and turn the separator. It ended after dark, the same way. I had spent the rest of the day chopping cotton. For supper, we had delicious fresh English peas from our own garden. The way Mama cooked them; they had delicious juice—or gravy. I was eating them with a spoon—a method that still seems sensible to me. Daddy stopped eating, looked at me, and said seriously and calmly, "It's plain now that you'll never be able to make a living on the farm. You'll have to go to town and you'll have to get an education. It's time you learned to eats peas with a fork!
>
> —(Torrance, 1969a, p3. 332)

This supper table conversation proved to be a crystallizing event in the life of E. Paul Torrance. Ellis Torrance, E. Paul's father, recognized that his son would never pursue a career in farming, and from that moment on, Paul Torrance remained committed to "getting an education." That defining moment between father and son ended years of desperate and unsuccessful attempts to master some of the more difficult tasks of farming and indicated

to Paul that his father accepted him as he was and it would be up to Paul to find his way in life. Paul Torrance did just that as he became the father of modern creativity research—a scholar whose influence spanned several generations.

Growing Up in Rural Georgia (1915–1936)

Ellis Paul Torrance was born on October 8, 1915, on a farm 10 miles outside of Milledgeville, Georgia. The son of Ellis and Jimmie Paul Torrance, he was the firstborn of two children; his sister, Ellen, was born four years later. Paul's grandfather, James Torrance, owned a 700-acre farm on which his family lived. As sharecroppers, the Torrance family was poor and often in debt but fared better than most of the people in the area. As a young boy, Paul was expected to work with his father and the hired hands; however, he proved incapable of handling farming tasks, due to a learning problem that today would be considered a disability. Young Paul felt ashamed because of his lack of skill such as not being able to plow a straight line (Millar, 1995).

Paul's parents became aware of their son's uneven development early on. Although he learned to walk and talk at a precocious age and he was agile as a runner, he was not physically strong, and there were many practical tasks for which he had no aptitude. As a result, his parents chose not to send him to school until age seven since they were concerned that he was not capable of walking the six-mile round-trip to school or defending himself from the older and stronger school bullies. His elementary school, Union Point, served Grades 1–9, and his vivid memories of those years included experiences that nurtured his academic and creative talents. His teachers in the early years encouraged his imaginative writing (Millar, 1995). During this time, Paul underwent an appendectomy and was required to rest for six months on the farm where he spent his days writing and illustrating his creative stories. Paul, an avid reader, was supported by his aunt with a large collection of books including many college textbooks, which he devoured.

Following his elementary school years at Union Point, Paul attended Georgia Military College, the county's high school for boys, a combination secondary school and junior college designated as an Honor Military Institute by the United States Army. Upon graduation from high school, Torrance acquired a job measuring cotton acreage in his home county and

succeeded in saving the funds he needed to attend the two-year college department at the Georgia Military College, where he attained the distinction of first honor graduate. Although Paul's family experienced difficult times in the middle of the Great Depression and the impending outbreak of World War II, Torrance was determined to continue his education.

The Making of a Scholar (1936–1951)

Torrance was offered a teaching position at Midway Vocational High School in Hardwick, Georgia, near his hometown of Milledgeville. He eagerly accepted the job, and although he had only a two-year provisional teaching certificate, he was allowed to teach. The school's principal had become ill, and Paul served as his substitute. Along with teaching eighth and ninth grade, he was handed the administrative duties of the principal's office. During this period he encountered two of the school's problem students who tested his skills as an educator. Later Torrance noted that these two young men known as problem students were actually creative and grew to be successful. One eventually became Secretary of Labor in President Gerald Ford's Cabinet, while the other young man became a school superintendent in Georgia (E. Paul Torrance, personal communication, October 10, 1997).

Torrance began taking education courses by correspondence during his first year of teaching and enrolled in summer courses as the only male student at Georgia State College for Women. In the fall of 1937, he was offered a position at his alma mater, Georgia Military College, where he taught French, Latin, algebra, and history. He continued coursework during the summers at Mercer University and graduated with a Bachelor of Arts degree with first honors in August 1940. While at Mercer, he became intrigued with psychology and was encouraged by a supportive professor to further his study in this area. He decided to pursue graduate work in counseling psychology at the University of Minnesota, which was highly regarded for its outstanding faculty, and by 1944 he earned a Master of Arts degree in educational psychology.

In December 1944, Torrance was offered a counseling position in the Counseling Bureau at the University of Minnesota. Disabled veterans were returning to colleges and universities, and the Veterans Administration was

providing counseling centers throughout the country to assist them in their adjustment to civilian life and decision making concerning college careers. Torrance was excited to return to Minnesota and readily accepted the position. This job would provide him the opportunity to enroll in courses toward his doctorate. He was productive during this period, publishing several scholarly articles; however, this time was cut short when he was drafted into the army in June 1945.

During his 13-month period of service in the U.S. Army, he was a psychiatric social worker and psychologist. Through this work Torrance deepened his knowledge of psychology, becoming well-versed in tests such as the Rorschach Inkblot Test, the Bender Gestalt Test, and the Army Individual Intelligence Test. He also experimented with a program of group psychotherapy and guidance for men who were dishonorably discharged. As a result of his efforts in this area, he was offered a position in the Counseling Bureau for Veteran's Administration at Kansas State College in 1946.

Torrance discovered more professional development opportunities at Kansas State and took advantage of them. With Dr. Jacob Moreno he studied psycho-drama and sociodrama, which he used later in his career with graduate students. During this time, Moreno encouraged Torrance to complete his doctorate, and after receiving financial support, he decided to pursue his Ph.D. at the University of Michigan. He was delighted to devote his total energies to graduate course-work, and his research interests shifted from counseling to classroom interaction. He completed his coursework in 1949, returned to his position at Kansas State College, where he wrote his dissertation, and earned his doctorate. Upon graduation from the University of Michigan in 1951, Torrance began his search for a full-time academic position.

An Emerging Fascination with Creativity (1951–1957)

Paul Torrance's fascination with creativity began early in his career, when as a counselor and high school teacher in rural Georgia, he found challenges in working with several difficult students. He determined that many of the students at the Georgia Military Academy were sent to the boarding school by their families because their non-conventional ideas and high levels of energy had not been understood or tolerated by their former teachers. He

noted that many of the most difficult young men later went on to become successful in a wide variety of professional domains (Hébert, Cramond, Speirs Neumeister, Millar, & Silvian, 2002). He acknowledged their creative potential and theorized that these students were more than children with behavior problems.

His interest in creativity intensified upon reading Margaret Broadley's (1943) book entitled *Square Pegs in Square Holes*, in which she presented a test to measure creative imagination. Broadley described creativity as aptitude, which "unless it is used and directed into the right channels, it is like a wild colt roaming the prairies, picturesque, perhaps, but little else… . Well directed and developed, the aptitude can lead you into deeply satisfying creative work" (p. 69). Inspired by Broadley's idea, Torrance began to think seriously about the notion of measuring creativity in children (Millar, 1995).

Torrance's interest in creativity remained strong while he served in the U.S. Army. Working as a counselor for disabled veterans, he met creative individuals whom he described as "wild colts" (Millar, 1995, p. 46). Later, when working for the Air Force Survival Training Program as a research psychologist, he saw a way to examine this issue more closely. He recognized indications of "wild colts" from the biographical data of the jet aces he studied and further indicators of their creativity in their responses to the Rorschach test and in their scores on the Risk-Taking Scale of a biographical inventory (Torrance, 1954). He recognized that the difference between the adult jet aces and the problem students he worked with in the Georgia schools was that the jet aces had learned to discipline themselves and use their creativity in productive ways (Millar, 1995).

The psychology of survival was taught to combat aircrew personnel at Staid Air Force base in Reno, Nevada. Torrance led a team in teaching and conducting research on how to survive under difficult conditions. During his seven years working for the U.S. Air Force, he and his colleagues wrote 135 research papers that were cited nationally and internationally by other researchers. Torrance and his team taught soldiers to survive in unusual and extreme conditions such as jungles, deserts, ice, and mountains. During this U.S. Air Force survival research program, Torrance laid the foundation for his lifelong pursuit of learning to identify and develop creative potential. The goal in these survival training schools was to train men to operate effectively in emergencies and extreme conditions. From these experiences,

Torrance developed his survival definition of creativity, “whenever one is faced with a problem for which he has no practiced or learned solution, some degree of creativity is required” (Millar, 1995, p. 39). Through his experiences working for the U.S. Air Force, Torrance gained tremendous insights in group dynamics and collaboration, experiential learning, tolerance of disagreements in groups, and the significance of motivation and creative thinking. These experiences would later influence his work. With the end of the Korean conflict, federal support for social science research was reduced, the survival research program was eliminated, and Paul Torrance decided to resume his career in higher education.

Creativity Research (1958–1984)

With strong professional recommendations from his survival research period, Torrance was recruited by Dean Walter Cook at the University of Minnesota and offered a position as Director of the Bureau of Educational Research and Professor of Educational Psychology in the College of Education. Torrance recognized within the department an atmosphere of intellectual freedom and tolerance for different philosophical approaches, and this excited him. With his background in survival research on groups under stress, Torrance realized that this type of environment was conducive to productivity, and he gladly accepted the appointment (Hébert et al., 2002).

Torrance's appointment was timely. With the launching of Sputnik and the beginning of the Space Race, the atmosphere nationwide was conducive for creativity research. Torrance discovered this was especially true at the University of Minnesota for the faculty advisory board to the Bureau of Educational Research (BER) recommended the design and implementation of a pioneering research program on giftedness to be conducted over 25 years. Dean Cook had observed that young children in the university lab school varied greatly in measures of ability, aptitude, and intelligence, and he looked to Paul and his research. Within the university's research program on giftedness, Torrance had an excellent opportunity to pursue his ideas about creativity.

Torrance's early years in Minnesota were eventful and productive. He collaborated with supportive colleagues and highly motivated research assistants as they worked to define, measure, and discover ways to develop

creativity. During this period, he began two longitudinal studies of creative talent in elementary and high school students along with a cross-cultural examination of creativity. In his university classroom, he established himself as an excellent teacher whose course, *Personality and Mental Health*, was extremely popular campus-wide. This course was especially significant for Torrance because it was the venue through which he met his future wife, Pansy. The vivacious nursing student had learned of Torrance's popularity as a teacher, and she enrolled in his class. Torrance was attracted to her warmth and outgoing personality, and following Pansy's proposal to him, they were married on Thanksgiving Day, 1959 (E. Paul Torrance, personal communication, October 10, 1997).

Torrance's professional life flourished. He remained prolific, and his research studies gained him national attention with the publication of "The Creative Child" in *Look* magazine in 1961. He was highly sought after as a conference speaker, and his first book on creativity, *Guiding Creative Talent*, published in 1962, received very positive reviews, was reprinted numerous times, and was translated into multiple languages (Millar, 1995).

As his career continued to blossom, Torrance was offered several distinguished professorships, but during a visit with his parents in Milledgeville, Georgia, he met with Dean Joseph Williams of the University of Georgia in Athens. Williams succeeded in convincing the Georgia native to return home. Paul and Pansy returned to Georgia in 1966 as Torrance was appointed Professor and Chair of the Department of Educational Psychology, Research and Measurement. Under his leadership the department more than doubled in size, and three new programs—school psychology, gifted and creative education, and a child guidance clinic—were established.

Although Torrance had strong support from Dean Williams, outside sources for funding creativity research were limited. This challenge did not discourage Paul. With total dedication from Pansy and contributions from his book royalties, he maintained his research productivity and established himself as one of the most productive scholars at the University of Georgia. During this period he refined his creativity measures developed in Minnesota as the *Torrance Tests of Creative Thinking* and designed others such as *Thinking Creatively in Action and Movement.* Torrance also created the Future Problem Solving Program, which became renowned and influenced the future thinking of thousands of children internationally.

Throughout this period his research productivity increased with the first follow-up investigation of his Minnesota participants involved in his longitudinal study of creativity (Millar, 1995).

Adversity entered Paul's life in December 1980, when his beloved Pansy suffered a stroke. She had been a staunch supporter and contributing partner in Paul's research and teaching. Pansy Torrance had been such a driving force in Paul's life, and her difficult health challenges were a concern for all who knew this beloved couple. During her convalescence, gifted children throughout the state of Georgia designed get well cards for Pansy. Below is one such example:

> *The Atlanta Constitution*
> March 9, 1984
>
> PANSY TORRANCE RECOVERS FROM STROKE
>
> Pansy Torrance recovered fully from a stroke. It is believed to be the fastest recovery ever from a stroke. Many students from the Georgia gifted program sent cards and helped her recovery. She is a woman loved by everyone in Georgia and well respected. Get well soon.
>
> Love,
>
> Mark Watson
>
> —(Humorous get well cards sent to Pansy Torrance. E. Paul Torrance artifacts and personal papers. Manuscript 3723, Box 6, University of Georgia,
> Hargrett Library Special Collections, Athens, Georgia).

In the fall of 1984, Paul Torrance retired from the faculty at the University of Georgia in order to care for his wife full-time. A month later, he suffered a stroke that changed his life drastically. He and Pansy both required extensive care as they recuperated. Because of the couple's health problems, Paul's retirement was not celebrated until a year later when over 250 students, friends, family members, and colleagues from all over the country descended upon Athens, Georgia, to honor him. As part of the two-

day celebration, Torrance delivered the inaugural annual E. Paul Torrance Lecture. The humble scholar chose to highlight the careers and significant contributions of his students as he emphasized their global network and their impact on thousands of others. Colleagues, friends, and former students throughout the world sent their reflections on E. Paul Torrance in time for the celebration. A message from Patty Bruce Mitchell of the U.S. Department of Education, dated March 23, 1985, is representative of the poignant correspondence he received:

> As I sit here and think about all of the teachers I had, all the professionals I know in education, and all of the policymakers I have worked with in my position, Paul Torrance remains the most revered. As a teacher, he is the creative thinking and research he has taught. As a professional, he has been devoted to advancing a discipline rather than seeking to control it. As a key leader in helping the gifted, creative children of our world, he has had far more impact than most policymakers. The years may slow your schedule, your speech or your pen but they cannot take away your magic, Dr. Torrance. Thank you for including me as you swept your wand across the world. (Letters acquired by Dr. Mary Frasier, Director of the Torrance Center for Creative Studies, presented at the time of his retirement. E. Paul Torrance artifacts and personal papers. Manuscript 3723, Box 10, University of Georgia,
> Hargrett Library Special Collections, Athens, Georgia)

Dr. Mary Frasier succeeded in establishing the Torrance Center for Creative, Gifted and Future Studies within the College of Education in 1984, the year of Paul's retirement, a fitting living memorial to the work of E. Paul Torrance. Since then the center has been renamed the Torrance Center for Creativity and Talent Development and continues to extend the mission of the university: to research, to instruct, and to serve. In 1985 the University of Georgia honored him with the distinction of being named Alumni Foundation Distinguished Professor Emeritus of Education.

During this chapter in his life, both Paul Torrance and his wife continued to face struggles with health problems which they faced with courage and adjusted their lifestyle accordingly. Pansy Torrance died in November 1988.

This loving couple had been married for 29 years. Paul wrote the following description of her at the time of her passing:

> Pansy Nigh Torrance, 1913–1988. Nurse. Nursing educator and Crusader, Teacher Extraordinaire, Children's Right Advocate, Mid-Wife to the Creative Process, Pioneer for Future Problem Solving. (Millar, 1995, p. 188)

Following his wife's death, Paul sent a letter to friends, dated November 20, 1988, in which he wrote,

> Now I must decide what the Lord wants me to do with the rest of my life, but I feel I must be careful about establishing my priorities. I know that one of my priorities must be "cheering others along." (Millar, 1995, pp. 187–188)

And cheer he did. He remained dedicated to encouraging the work of others in the field of creativity as he continued the pursuit and support of creativity by writing and conducting research with colleagues. He was also well-known by postal employees in Athens, Georgia, for the voluminous letters he received from all corners of the world as he maintained correspondence with scholars and friends who sought his expertise and advice concerning their work in the field of creativity (Mary Frasier, personal communication, September 5, 1997).

Although he was retired from the university, Torrance's dedication to the field of creativity remained unsurpassed. He continued to be prolific in the last decade of his life. With Tammy Safter he revised his book, *The Search for Satori and Creativity*, to *Making the Creative Leap Beyond* . At the age of 85, he published *On the Edge and Keeping on the Edge* . He authored several new books on creativity including the following: *Why Fly? A Philosophy of Creativity*, *Multicultural Mentoring of the Gifted and Talented* with Kathy Goff and Neil Satterfield, and *Gifted and Talented Children in the Regular Classroom* with Dorothy Sisk. He completed the data analysis from his 40-year follow-up study of the elementary students in Minnesota and submitted his manuscript to a publisher. The study entitled *The Manifesto: A Guide to Developing a Creative Career* was published in 2002. At the time of his 30-year follow-up study of high school students, he had coined the term "beyonders" to describe those highly creative

individuals who had achieved so far beyond their counterparts that they could not be placed on the same scale. There is no doubt that E. Paul Torrance was a beyonder; as the late A. Harry Pas-sow explained, “There are few names in education who have had as much influence nationally and internationally as my friend and colleague, E. Paul Torrance” (Millar, 1995, p. xiii). Joseph Renzulli best summarized Torrance's legacy when he stated, “Paul Torrance created a field but what I admired about him the most was the kind of person he was—a sweet, kind, gentle and unassuming person who encouraged everyone around him” (J. Renzulli, personal communication, June 12, 2012). E. Paul Torrance died on July 12, 2003, and was laid to rest with his loving wife Pansy in a family cemetery in Milledgeville, Georgia.

Torrance's Accomplishments

At the time of his retirement from the University of Georgia, Torrance was internationally renowned as a scholar of creativity. Records indicate that he produced a total of 1,871 publications including books, journals articles, chapters, tests, and book reviews, making him one of the most prolific faculty members in the history of the University of Georgia (E. Paul Torrance artifacts and personal papers. Manuscript 3723. University of Georgia, Hargrett Library Special Collections, Athens, Georgia). An examination of this significant body of work indicates that Torrance's major accomplishments include his tests of creativity, the longitudinal studies on creative elementary and high school students in Minnesota, the establishment of the Future Problem Solving Program, the development of the Incubation Model of Teaching, and his efforts calling attention to the need to identify and nurture the gifts, talents, and creativity of culturally diverse children from economically disadvantaged backgrounds. The following discussion highlights his legacy by addressing each of Torrance's major accomplishments.

The Torrance Tests of Creativity

E. Paul Torrance is immediately associated with his tests of creativity; however, assessment of creativity was not his early goal. His work in assessment was a means to an end and not an end in itself. When Torrance

was hired at the University of Minnesota in 1958, he was provided an ideal opportunity to continue the work in creativity begun while he was employed by the U.S. military. The zeitgeist of the scientific community in the early 1960s was that of a behaviorist community. Scholars demanded observable, measurable ways to discover if creative strategies were effective in increasing more creative responses. Torrance's logical response to those demands was to design a means of assessing creativity. Before he could develop the test of creative abilities, Torrance decided that a research definition that would guide his work was necessary. He examined numerous definitions before deciding on a definition that described creativity as a natural process that included individuals at any age. He also recognized that his definition needed to capture the strong human need to resolve tension when something is perceived to be missing or incomplete (Hébert et al., 2002, p. 12). With this philosophical view, Torrance placed his definition within the realm of everyday people with the following:

> Creativity is a process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on; identifying the difficulty; searching for solutions, making guesses, or formulating hypotheses about the deficiencies; testing and retesting these hypotheses and possibly modifying and retesting them; and finally communicating the results. (Torrance, 1974a, p. 8)

Torrance studied tasks that scholars in the 1950s had created and determined that in order to measure creative abilities, the activities he designed would have to meet certain criteria. He noted that activities would have to involve a natural everyday process. He maintained that they had to be suitable for individuals of all ages and educational levels, kindergarten through graduate and professional school. He insisted they be easy enough for the young or the disabled to provide a creative response yet difficult enough to challenge the most able participants. The activities had to be unbiased with regard to gender and race and open-ended to allow for individuals from different experiential backgrounds to respond comfortably. Torrance insisted that the activities needed to be fun (Torrance, 1966, 1974b). He personally screened each activity and observed the administration of the activities with a variety of groups of both children and adults to monitor individual and group responses. The resulting battery of

activities, called the *Minnesota Tests of Creative Thinking,* was the predecessor of the *Torrance Tests of Creative Thinking* (TTCT), developed after E. Paul Torrance transitioned to the University of Georgia (Torrance, 1966, 1974a).

Torrance and his colleagues designed two versions of the TTCT. The TTCT-Verbal provides two parallel forms and incorporates five separate activities: ask-and-guess, unusual uses, unusual questions, product improvement, and just suppose. Each task is accompanied by a picture to which participants respond in writing (Torrance, 1966, 1974a). The TTCT-Figural also has two parallel forms and consists of three separate activities: picture construction, picture completion, and repeated figures of lines and circles.

Researchers today recognize the many positive features of the TTCT including the wealth of information available on it. The instrument is more researched and analyzed than any other creativity instrument (Kim, 2006; Johnson & Fishkin, 1999), has one of the largest norming samples with meaningful longitudinal validations (Davis, 1997), and has established a high predictive validity over a wide age range (Cropley, 2000). The standardized process of administration and scoring procedures and norms has made the TTCT particularly useful for identifying students for gifted and talented programs (Davis & Rimm, 1994). The TTCT-Figural is fair in relation to gender, race, language background, culture, and socioeconomic status (Cramond, 1993). For a more technical review of the TTCT readers should see Kim (2006). With its long tradition of research and development, the Torrance Tests of Creative Thinking have continued to serve several significant purposes, and their merits help to explain why the TTCT are eponymous with the name of E. Paul Torrance.

The Longitudinal Studies

In developing the Torrance Tests of Creative Thinking, Torrance faced the challenge of establishing predictive validity for his tests. He recognized that their real value lay in their ability to adequately predict adult creative productivity. He realized that attempting to predict something as complex as creativity would be extremely challenging and saw that a longitudinal approach would be necessary.

Seven longitudinal studies examined the predictive validity of the TTCT. The preliminary studies, conducted within a few years of the administration of the tests, were done with limited samples, including elementary education majors (Torrance, Tan, & Allman, 1970), a group of seventh-grade students (Cropley, 1971), and a small group of economically disadvantaged Black children (Witt, 1971). These three early studies provided some credibility to the Torrance Tests of Creativity as predictors of later creative productivity. The bulk of the longitudinal research included four major points of data collection initiated by Torrance in Minnesota in the 1950s and 1960s. Initially, the participants in the study were children in Grades 1–6. Subsequently, students in Grades 7–12 were administered the TTCT. Seven years later many of the students received the follow-up measures (Torrance, 1969b) that provided an understanding of the predictive validity of the tests. Five years later, Torrance reported a second follow-up in which he used a checklist of creative achievement and accomplishment as one criterion. Respondents were asked about several domains including philosophy of life, invention, involvement in the arts, innovation at work, and research (Torrance, 1972). The next follow-up was 22 years after the TTCT had been initially administered (Torrance, 1981).

In his early stages of longitudinal data collection, Torrance found gender differences and realized that predictions of success in life discriminated against females since they had fewer opportunities than did males in public achievements. As a result, he introduced the criterion measure called the *Creative Style of Life Achievements* in his 1980 data collection to enable respondents to report their more personal achievements. For example, women were encouraged to report problems they may have encountered in realizing their creative potential. Questions focused on everyday creative behavior, including having organized social action groups, designing a home, starting a new program, or becoming immersed in a new hobby (Torrance, 1981). With the 1998 follow-up, Torrance derived one index of adult creative achievement—the number of publicly acknowledged creative achievements (Millar, 2002).

Cramond, Matthews-Morgan, Bandalos, & Zuo (2005) reported the 40-year follow-up to Torrance's longitudinal study. They examined a variety of predictors including the global creativity index from the initial TTCT data collection, IQ, fluency, flexibility, originality and elaboration, and data about respondents' experiences with mentors. Criteria involved quality and

quantity of creative achievements. The researchers discovered that originality, fluency, and IQ, each obtained in the initial phases of data collection, were reasonable predictors of the quantity of creative achievements 40 years later. In addition, they found that having a mentor was also related to the quality and quantity of achievements; this finding was much more pronounced among the women.

Runco and his colleagues (2010) undertook the 50-year follow-up study and noted that the results underscored the significance of divergent thinking and the role it should play in parenting and educating children. They concluded that divergent thinking clearly plays a role in certain types of creative expression and achievement throughout the lifespan. E. Paul Torrance would be delighted!

The Future Problem Solving Program

In pursuing his research at the University of Georgia, Torrance became concerned about the overall decline of creativity in American society and noted the lack of knowledge and concern for the future among young people in this country. In 1974, he was invited by a local high school principal in Athens, Georgia, to work with a group of gifted high school students, and he saw the opportunity to field test an idea.

Torrance admired the work of Alex Osborn and Sidney Parnes, the originators of the Creative Problem Solving Process (CPS). He decided to teach this process to the high school students; however, he chose to focus on particular problems that addressed the future. By combining Creative Problem Solving with futuristic problems, Torrance hoped that young people would not only learn to think more creatively, but they would also develop an interest or concern for the future. As a result, the original Future Problem Solving Bowl was held in Athens, Georgia (Treffinger, Jackson, & Jensen, 1996).

The teenagers working with Torrance and his graduate students on Future Problem Solving (FPS) were enthusiastic and wanted more. A series of materials was designed for the following school year, and other schools throughout Georgia joined the program. Torrance mentored his graduate students as they developed materials for teaching FPS. They also helped to grow the program when they eventually acquired professional positions in higher education and transferred the concept throughout the country. As a

result, FPS expanded, and by 1977, the Future Problem Solving Bowl became the Future Problem Solving Program. Within several years, FPS became nationally recognized as both a curriculum project designed to teach creative problem solving and future studies and an interscholastic competition (Millar, 1995). By 1979, the National FPS competition had expanded in breadth, depth, and size with young people from 26 states competing. The events included a scenario writing contest, an individual competition, and a presentation competition in which teams designed creative skits to deliver their best problem-solving solutions (Treffinger, Jackson, & Jensen, 1996).

By the late 1980s Torrance's original idea had blossomed into an international program. The Future Problem Solving Program continues to grow with over 250,000 students across the country participating in FPS activities. An annual international FPS conference involves more than 2,000 students in competitive problem solving, cooperative educational seminars, and enjoyable social activities (Hume, 2001). With its international expansion, the Future Problem Solving Program has become known as Future Problem Solving Program International (FPSPI) with students from across the globe joining the competition. For information regarding the international program, see http://www.fpspi.org.

The Incubation Model of Teaching

Early in his career at the University of Minnesota, E. Paul Torrance was recruited by Ginn and Company to serve as a creativity consultant in reading and social science. In this role, he was asked to develop guidelines for curriculum writers developing instructional materials. Torrance guided the writing teams as he believed that teachers would need two types of information in order to facilitate creative thinking within a curriculum. He maintained that information about the creativity skill levels expected of children at different stages of development was critical. Moreover, he saw that teachers needed to understand the types of activities that would facilitate creative thinking preceding, during, and following a lesson. From his work with the publishing company, the Incubation Model of Teaching evolved and was designed for use in gifted and talented programs as well as in the regular classroom. Torrance and Sisk (1997) described the goals of the model as follows:

> Before creative thinking can occur, something has to be done to heighten anticipation and expectation and to prepare learners to see clear connections between what they are expected to learn and their future life (the next minute or hour, the next day, the next year, or 25 years from now). After this arousal, it is necessary to help students dig into the problem, acquire more information, encounter the unexpected, and continue deepening expectations. Finally, there must be practice in doing something with the new information, immediately or later. (p. 91)

The Incubation Model consists of three sequential yet interactive stages: *Heightening Anticipation, Deepening Expectations,* and *Keeping It Going* . Each stage offers a menu of classroom strategies for educators to select from in order to design their lessons according to the model. Torrance and Safter (1990) proposed that this model could be used as a guide in planning courses, planning lessons, developing instructional materials, and in simply improving instruction. It has been adopted by educators throughout the United States; consultants from the Torrance Center for Creativity and Talent Development continue to provide professional development for teachers implementing the model.

Nurturing Creativity in Culturally Diverse Children of Poverty

E. Paul Torrance was the product of a humble background in rural Georgia and understood how poverty was influential in shaping a life. Hence, Torrance took a keen interest in identifying and nurturing the gifts, talents, and creativity of children of poverty. As a child growing up in the rural South, Torrance saw the impact of poverty on Black children, and throughout his scholarly career he dedicated much of his work to raising awareness of the need to identify and nurture the gifts, talents, and creativity of culturally diverse children from economically disadvantaged backgrounds.

Early in his career Torrance (1969c) presented his concerns regarding the need to develop the talents of children of poverty. He believed that recognition of extraordinary potential among disadvantaged children could be achieved and provided scholars and educators with a wake-up call:

> We must also look for and cultivate talents of the type that are valued in various disadvantaged subcultures of our country. My position is that not only should we identify and cultivate the talents valued by a particular subculture but that we shall be more successful if we do. (pp. 72–73)

Torrance recognized that the difficulty in finding hidden talent among disadvantaged children involved the nature of tests used to measure talents. He indicated that most tests "require that the child respond in terms of the experiences common in our dominant, advantaged culture" (Torrance, 1969c, p. 73). Torrance called for tests of creativity to permit children of poverty to respond in terms of their own experiences, and his recognition of this issue was reflected throughout the research and development of the Torrance Tests of Creative Thinking. He used the TTCT in summer creativity workshops conducted with economically disadvantaged Black children in Athens, Georgia, and found that such a format provided a psychologically safe environment allowing the children to perform well on the measures.

In the early 1970s Torrance developed a university practicum course which involved applied experiences with children of poverty. Graduate students worked with children in Parkview Play School and Dudley Park in Athens. They were assigned to facilitate activities including photography, pantomime and creative dramatics, music, puppetry, storytelling, creative writing, and art. Pansy Torrance joined the graduate students and provided the children with general nursing services throughout the summer. Using their personal finances, Paul and Pansy Torrance provided the creativity workshops for five consecutive summers (Millar, 1995). In these summer enrichment programs for children, Paul and his students gained a much deeper understanding of children of poverty. As part of their research, they maintained documentation of their experiences including photographs, curriculum plans, and observational field notes. Documentary captions accompanying the photographs highlight Paul's compassion for the young children. Below is one such example:

> Boy attending the workshop for disadvantaged children at Dudley Park in Athens. Note the sign of malnutrition and knee sores that are unhealed. His twin sister spent most of the time during her infancy at

> the hospital where she received adequate nutrition. Her development has been normal while this boy stayed at home and was malnourished because of the poverty of the family. (Mounted photo of boy at Dudley Park workshop. E. Paul Torrance artifacts and personal papers. Manuscript 3723, Box 2, University of Georgia, Hargrett Library Special Collections, Athens, Georgia)

Through this work in his practicum course and on the basis of numerous published (1969c, 1974b, 1984) and unpublished studies of children of poverty, Torrance identified a set of creative positives that occurred to a high degree among disadvantaged children and proposed that educators build upon them in designing educational opportunities for children. The creative positives were:

- High non-verbal fluency and originality
- High creative productivity in small groups
- Adeptness in visual art activities
- High creativity in movement, dance, and other physical activities
- High motivation by games, music, sports, humor, and concrete objects Language rich in imagery (pp. 74–75).

Dr. Mary Frasier later joined Paul Torrance at the University of Georgia and also dedicated her career to identifying, educating, and counseling culturally diverse gifted students from disadvantaged backgrounds. During Torrance's retirement years another young scholar joined Mary Frasier and her colleagues in her research efforts towards equity and excellence in gifted education. Tarek Grantham, an African American scholar, joined the faculty with his research agenda on the underrepresentation of Black students in gifted education and was influenced and supported by Paul Torrance. Grantham discussed an early conversation with Dr. Torrance in his home. Torrance was not reticent in describing his meeting with then-Governor Jimmy Carter, who questioned Paul as to why there were so few Black students in Georgia's premier summer programs for gifted high school students. Grantham explained,

> Dr. Torrance's ease with sharing this inequity set the tone for how I would later come to know and revere his work on equity for ethnic

> minority and disadvantaged students, particularly Black students… . He was the first gifted and creative education scholar to call major attention to the reality that differences among Black and economically disadvantaged students are not deficits. (T. Grantham, personal communication, February 20, 2012)

The Legacy of E. Paul Torrance

In reflecting on the countless number of children whose lives have been touched by E. Paul Torrance's contributions, it is easy to understand why he is regarded as the "Father of Creativity." When one considers Torrance's influence on twenty-first-century schools, we recognize how his thinking and his scholarship helped to revolutionize not only gifted education programs but also touched the lives of all school children. Perhaps E. Paul Torrance's greatest contributions will be measured by the countless disciples he inspired and who continue to influence educators, parents, and children throughout the world. With his quiet strength, kindness and sincerity, and warm sense of humor, Paul Torrance radiated love and compassion. He lived what he taught and inspired others to become the best that they can be.

Note

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14

KAZIMIERZ DABROWSKI

A Life of Positive Maladjustment (1902–1980)

Marjorie M. K. Battaglia, Sal Mendaglio, and Michael M. Piechowski

The Early Years: Under the Tsar

A journal editor once asked Kazimierz Dabrowski what led him to developing his theory. Overcoming his usual reticence, Dabrowski described how the questions of death, suffering, and the meaning and destiny of human existence went back to his childhood: "I learned about death very early in my life…. When I was six my little three-year old sister died of meningitis." During the First World War, when he was not yet 13, he witnessed a battle: "When the exchange of artillery fire ended, fighting went on with cold steel. After the battle was over, I saw several hundred young soldiers lying dead, their lives cut in a cruel and senseless manner" (Dabrowski, 1975, p. 233). The memory of this experience never left him and was further magnified during WWII:

> I witnessed masses of Jewish people being herded toward ghettoes. On the way the weak, the invalid, the sick, were killed ruthlessly. And then, many times, I myself and my close family and friends have been in immediate danger of death. The juxtaposition of inhuman forces and inhuman humans with those who were sensitive, capable of sacrifice, courageous, gave a vivid panorama of a scale of values from the lowest to the highest … From the events of those times came an

> unappeased need to deepen the attitude toward the death of others and toward my own, toward injustice and social cataclysms, toward the discrimination between truth and falsehood in human attitudes and behavior. (Dabrowski, 1975, pp. 233–234)

Kazimierz Dabrowski was born on September 1, 1902, on an agricultural estate his father Antoni administered in Klarów, near the city of Lublin in the eastern part of Poland that had been overtaken by Russia. Beginning in 1792, Poland underwent successive partitions by Russia, Prussia, and Austria. After the Congress of Vienna in 1815, the Lublin region became part of the Kingdom of Poland ruled by the tsar. In July 1915, in a fierce battle several kilometers from Lublin, the Austro-Hungarian army defeated the Russians (Cieslak, Gawarecki, & Stankowa, 1976). Without doubt this was the battle Dabrowski witnessed as a boy. Three years later, the three empires had collapsed, and Poland was reborn as a sovereign state.

Kazimierz was the second to the youngest of three boys and a girl. The family put an emphasis on culture and books. Attending school in Lublin, Kazimierz was the editor of the high school quarterly, *Into the Future*, to which he contributed poetry and drama. At that time he also participated in Polish underground youth organizations (Battaglia, 2002).

1918—Free Poland

In 1918, while he was still in high school, Dabrowski concealed his age in order to enroll at the newly founded Catholic University of Lublin. He completed two years of study in literature, philosophy, and psychology. Already at 16 he was reading Kierkegaard—Polish translations existed in print—whose ideas were to exert enormous influence on him. Kierkegaard's emphasis on the inner struggle to forge one's individuality—consciously and deliberately, with determination and will, in forceful opposition to a life of social immersion, conformity, and comfort—had taken deep root in young Dabrowski's mind. Individuality is hard won. Later, Dabrowski would say that personality is hard won.

University Years

In 1924, Dabrowski went on to the University of Poznan, where he studied literature, psychology, sociology, philosophy, and pedagogy. The influence of Poland's *romantic* school of thought was strong in those years. Gravitating toward the creative sphere, he befriended artists, poets, dancers, and musicians. Dabrowski played the piano and at first thought of majoring in music (Battaglia, 2002). Decades later, the vulnerability and maladaptation of gifted and creative youth and adults were the impetus to developing his theory.

After graduating from the University of Poznan in 1926, Dabrowski began his medical studies at the University of Warsaw. Jan Mazurkiewicz, an eminent Polish psychiatrist, impressed Dabrowski with the "significance of emotions as directing forces" (Dabrowski, 1964b, p. xii). In his theory of positive disintegration (TPD), Dabrowski would introduce the concept of an autonomous developmental factor of conscious self-determination.

While studying under Mazurkiewicz, Dabrowski worked with pediatric patients with mental disabilities. A keen observer, Kazimierz became interested in children who intentionally harmed themselves for no apparent reason. He viewed the physical self-infliction of pain as a "wish to suffer," linking suffering to a personal redemptive action to atone for guilt leading to moral perfection. Dabrowski noted, "There is no doubt that there exists a more or less normal necessity for suffering following the feeling of guilt, or the possession of certain defects, suffering which is considered a redemption, or a way of moral perfection" (1937b, p. 5).

Studies Abroad

In 1928, Dabrowski won a scholarship to study at the University of Geneva and at the Jean-Jacques Rousseau Institute. Here he studied with Jean Piaget, but mainly with Edouard Claparède, whose ideas evolved from Rousseau's nonrestrictive pedagogy to underline respect for children's individual psychological characteristics, their subjective needs, abilities and interests. Dabrowski became close to Claparède who belongs to a long line of child-centered educators, beginning with Quintilian (Grant & Piechowski, 1999).

In 1929, Dabrowski, phoneticizing his name as Casimir Dombrowski, received his M.D. and also a Diploma in pedagogy from the University of Geneva. Prompted by the suicide of his best friend, he chose for his

doctoral dissertation the subject of suicide as an attempt to understand why some individuals of fine character commit suicide while others are driven to murder (Dombrowski, 1929; Nelson, 1992).

Two years later, Dabrowski obtained his Ph.D. in psychology from the University of Poznan for his clinical observations and research on eminent personalities such as Michelangelo, Fyodor Dostoyevsky, Otto Weininger, Jan Wladyslaw Dawid, and Leo Tolstoy. Published in Poland in 1934, it was translated into English and appeared in 1937 as a monograph entitled "Psychological Bases of Self-Mutilation." Under self-mutilation, Dabrowski included emotional self-flagellation, self-loathing, and unjustified feelings of guilt.

With inexhaustible energy and drive, Dabrowski continued to absorb everything at the leading edge of psychology, psychotherapy, and neurology. In 1932, with a grant from the National Culture Foundation, he trained in psychoanalysis in Vienna under Wilhelm Stekel and became certified (Dabrowska, ca. 1980, p. 3). He would later say, laughing, "I don't understand any of it!"

He traveled from Vienna to Paris to study with Gérard Meyer and to attend lectures by Pierre Janet, a famous psychologist and psychotherapist and the original discoverer of unconscious contents in the psyche. Dabrowski said that by listening to Janet's lectures he came to see mental health as a creative developmental process. According to the colleague who wrote a preface for one of Dabrowski's books,

> He reminisced that the time in Paris was decisive for him. He realized that psychopathological interpretation of disturbances of psychological function can be misleading, that expressions of psychic overexcitability are associated with activities of a creative character and with accelerated process of development. He began having doubts about homeostatic equilibrium as a criterion of mental health and statistical norm as a criterion of what is normal. Dabrowski already then was struck by noting that what is most valuable, and most creative in human life, lies outside the norm, the average, the routine and conformist. (Kawczak, 1996, p. vii)

At the age of 31, Dabrowski sailed to the United States aboard the *SS Washington*, which docked in New York City on October 19, 1933

(Rockefeller Archive Center, fellowship card #1). He was accompanied by his first wife, who later died in Poland of tuberculosis (F. Lesniak, personal communication, August 30, 2000). The Rockefeller Foundation funded Dabrowski for nine months of research and practice in Boston at the Judge Baker Guidance Clinic, at Boston Psychopathic Hospital, and at the Harvard School of Public Health.

The Formation of the Institute of Mental Hygiene in Poland

Dabrowski returned to Warsaw in 1934. His goal was to initiate a system of mental health care in Poland as there was none. The Rockefeller Foundation awarded him $15,000 (over $250,000 in today's dollars) to open an Institute of Mental Hygiene in Warsaw. The Institute conducted research studies, offered instruction, and helped popularize the concept of mental hygiene, a movement initiated by Dorothea Dix, an American teacher, in the mid-nineteenth century. Dabrowski defined the concept in this way:

> [Mental hygiene] is the study of the *prerequisites of psychological health* of the individual and group, and of the concrete skill extended to the individual and group of recommendations based on the knowledge of those prerequisites…. Mental hygiene is of interdisciplinary character drawing on clinical, developmental, and child psychology, as well as pedagogy, sociology, and philosophy. (Dabrowski, 1979, p. 36; emphasis added)

Four years later, at the Second International Congress of Mental Hygiene in Paris, Dabrowski reported that the Institute had five departments: a hospital clinic with 40 patients; a Child Guidance Clinic that gave 600 consultations in 1936 and almost 600 in just the first half of 1937; “a special Guidance Clinic devoted to speech troubles”; a Guidance Clinic for normal adolescents who were ages 16–25; and a Consultation Center for epileptics. Education and wellness were prime objectives within the Institute (Dabrowski, 1937b). Dabrowski felt it was essential to include not only the clinical staff but also parents, teachers, and counselors in the child's therapeutic program. Dabrowski offered services such as child guidance clinics, lectures, and classes for parents and teachers. His goal was to return children to the most normal environment as soon as possible. His

holistic approach to healing was quite novel for the time (Battaglia, 2002). Concerned about moral renewal of society, he organized a Society for Moral Culture (Kawczak, 1996), because one aspect of his theory of positive disintegration was moral development. This explosion of professional activity was abruptly curtailed by the outbreak of war.

The War Years

World War II began with the German invasion of Poland on September 1, 1939. The Nazis planned to exterminate the Polish intelligentsia. According to an historian, “Forty percent of all university faculty members were killed by the Germans. Twenty seven universities and institutes of higher learning were destroyed together with 50% of high schools and grade schools and most of the libraries” (Pogonowski, 2000, p. 217). The Polish language was forbidden in most of the country; only the central part of Poland, including Warsaw and Kraków, was left Polish-speaking. The practice of psychiatry was also forbidden, and Dabrows-ki's name appeared on a Nazi list for imprisonment and extermination. The death toll was enormous: “Of the four hundred Polish psychiatrists practicing before the war, only thirty-eight survived” (Aronson, 1964, p. ix).

The mentally ill were prime targets of the Nazi purification plan, and those who cared for them—doctors, nurses, therapists, counselors—were in grave danger. When the Germans closed his Institute in Warsaw, Dabrowski moved his patients and equipment to the hidden institute in Zagórze and claimed it was a tuberculosis hospital so Germans would avoid it. The facility was enlarged to 200 beds to accommodate the increase in occupants. He succeeded in opening two more facilities near Warsaw to care for children left without parents. Clandestinely, at enormous risk, the institute taught classes, while also serving as a shelter for soldiers of the Polish Army, fugitives from the Warsaw Jewish ghetto, physicians, and members of the underground (Kawczak, 1996).

In the midst of World War II, Dabrowski married Eugenia, his second wife, in 1940. Their marriage, which resulted in two daughters, Joanna and Anna, appears to have been a happy one. Eugenia earned a master's degree in psychology, and dedicated herself to supporting her husband's mission to protect and save creative people, persons of high moral character, and all

those vulnerable in face of the competitions, pressures, and demands of society.

1942 Arrest

Dabrowski was arrested by the Gestapo and imprisoned in the Pawiak prison in Warsaw. The Pawiak archival records document his imprisonment from February 20 to 25, 1942 (Domanska, 1978). The Pawiak was the largest German political prison in occupied Poland. Of the 100,000 prisoners incarcerated there, 37,000 were executed, with the rest transferred to concentration camps (Battaglia, 2002). From the Pawiak, Dabrowski was transferred to the Montelupich prison in Kraków, where he stayed several months. The Montelupich prison contains a history of untold horrors. With the help of a physician, Dabrowski's wife, Eugenia, helped secure her husband's release (Kawczak, 1996).

Dabrowski returned to Zagórze. When the war ended in 1945, Dabrowski again requested funding from the Rockefeller Foundation. Due to a series of mis-communications, none came (Battaglia, 2002). Despite the setback, Dabrowski opened 12 branches of his Institute within three years. He was determined to see his dream of a system of mental health become reality.

Communist Takeover and 1950 Arrest

Following the end of the war, Stalinist communists came to power in Poland. In 1949, the Institute of Mental Hygiene in Warsaw was again closed. The Polish Association of Mental Hygiene was disbanded in 1950; the School of Advanced Studies in Mental Hygiene was closed in 1952. Dabrowski was forced to take a position “in servitude” as the director of a psychiatric hospital. Shortly thereafter, Dab-rowski and his wife were arrested, having been deceived by an offer of passage to Denmark (Battaglia, 2002). During the 18-month imprisonment, Dabrowski went on a hunger strike in order to see his wife. He and Eugenia were finally released, and Dabrowski was given a mandatory assignment in another psychiatric hospital.

Rehabilitation after the Stalin Regime and Research on Gifted and Talented Youth

By 1953 Stalin was dead, and 1956 saw a "thaw" in the regime. In the course of political "rehabilitation," Dabrowski regained his academic position. He organized a Child Psychiatry Institute at the Polish Academy of Science in 1958. Following his hypothesis that the gifted and creative have a higher developmental potential, Dabrowski included in his research students of high general ability, with an IQ range of 120–146. He wanted to compare their overexcitability profiles and psychoneurotic symptoms with those talented in drama, dance, art, and music with an IQ range of 110–155 (Dabrowski, 1967, 1972). His goal was to show that the symptoms did not represent pathology but rather potential for mental growth. Creative people, priests, and spiritual seekers were among his clinical clients. Over the years, Dabrowski collected material by reading biographies of eminent personalities to document the link between creativity and mental disturbances that were part of the process of growth through positive disintegration.

Invitation to Canada

As the editor of the *International Journal of Psychiatry*, Jason Aronson became familiar with Dabrowski's work. He went to Poland in 1964 when Dabrowski's book, *O Dezyntegracji Pozytywnej* (On Positive Disintegration), was fresh from the press and edited Dabrowski's short introduction to the theory, *Positive Disintegration*, subsequently published by Little, Brown, also in 1964. That same year, the Quebec Ministry of Health invited Dabrowski to Canada; he went to Montreal with his wife and daughters. To m Nelson, the acting chair of psychology at the University of Alberta in Edmonton, offered Dabrowski a visiting professorship as a director of clinical training. A widower, Nelson was raising his children as a single parent. Dabrowski's emotional support brought the two families together. At first Nelson was unsure about how Dabrowski would perform because of his heavy accent and limited command of the English language. Dabrowski was self-conscious about his inadequate English; he felt more at home with French. In the end, he communicated well thanks to his intensity

and enthusiasm. He often used the word "basical," making his listeners wonder why he was talking about a bicycle (Battaglia, 2002).

Drafts of his book chapters were translated by persons who did not understand his ideas or his condensed way of expressing them. His limited English prevented him from realizing how garbled these translations were. Working with Dabrowski imparted a sense of urgency. Sensitive and creative psychoneurotics needed to be rescued, the theory had to be disseminated and pathologizing characteristics that expressed developmental potential and creativity had to be opposed. He was unreasonable in his demands toward coworkers—what needed two weeks he thought could be done in two days, but he was kind and totally accepting toward his clients in therapy (Piechowski, 2008).

Multilevelness Research Project

Dabrowski received a three-year research grant from Canada Council to showcase his theory through an analysis of case examples. Willing subjects were asked to write autobiographies and open-ended responses to several stimulus words, take an intelligence test, and undergo a neurological examination. There was also a clinical-diagnostic interview to collect essential information about the person. The project resulted in a two-volume work, *Theory of Levels of Emotional Development*. The theory of positive disintegration (TPD) is elaborated in detail in the first volume while the second volume contains analysis of cases representing the different developmental levels and processes of positive disintegration (Dabrowski, 1977, 1996; Piechowski, 2008).

The third author recalls that during the project, on his 70th birthday, "Dexter Amend, Marlene King, myself, and some other students went to his office with cake and flowers to wish Dabrowski a happy birthday. He received us graciously and then launched into a discourse on death."

Return to Poland and Death

In 1979, Dabrowski experienced a heart attack. When he recovered sufficiently, he returned to his beloved Poland to die in the land of his birth. On November 26, 1980, life ceased for Kazimierz Dabrowski. He is buried in the forest not far from his "hidden" Institute in Zagórze, on the outskirts

of Warsaw. The surrounding dense forest hides his grave. One must try to imagine what Dabrowski could have accomplished had his theory become better known and had his work not been interrupted by six years of war and the long slog of postwar communism.

The Theory of Positive Disintegration

Dabrowski's theoretical effort is grounded in the neurology of his time. Darwinian evolution was very much on people's minds so it was only natural to contemplate the evolution of the nervous system in step with human evolution. In those days, integration and disintegration were part of the neurological terminology. Psychiatric theories and theories of personality grew out of the need to make sense of mental illness. Neurologists looked for impairment in the nervous system, psychiatrists and psychologists for impairment of social functioning, reality function, emotional response, and sense of self, with the goal to restore people to their original level of functioning.

Evolutionary Ideas in Neurology and Psychology

John Hughlings Jackson (1884) proposed that the evolution of the nervous system proceeds from instincts acting automatically to thought acting autonomously. Subsequently, Constantin von Monakow saw instincts as the building blocks of the human psyche on many levels. Typically, human instincts represent a high level at which human values appear, and values motivate behavior (Monakow & Mourgue, 1928). Monakow also pointed out that Freud's theory of instincts lacked the concept of a *hierarchy of values*, a concept that later figures prominently in Dabrowski's theory. Finally, Monakow (1925) hypothesized that the instinct of self-preservation evolved from physical survival to education and care for posterity, creation of ethical values, and altruism, “striving toward the good and the true, impulse toward ethical perfection and purity” (pp. 24–27). These ideas illustrate the zeitgeist in which Dabrowski's mind was churning, but they were pushed aside by psychoanalysis and behaviorism until the advent of humanistic psychology in 1969.

Pierre Janet (1859–1947) is best known for his study of psychoneuroses. He emphasized observation and precise description of psychological

processes, but the theory that emerged lacked the drama, symbolism, and mythology of Freud's theory. It also lacked a name—a major handicap—though it was more broadly conceived and comprehensive (Barraud, 1971). Studying Janet's major works and attending his lectures in Paris affected Dabrowski deeply.

Janet's psychology is about the normal individual, while Freud reduced everything to a system of pressures, defenses, and releases. Janet analyzed actions as a balance of resources and expenditures of personal energy. Depleting one's resources (one's coping energy) precipitates mental breakdown. Mental health is regained through development toward unity of personality. He viewed feelings as regulators of action (Sjövall, 1967). To outline the psychological evolution of personality, Janet drew not only from the work of French psychologists and psychiatrists but also from the research of William James, J. H. Jackson, C. S. Sherrington, and J. M. Baldwin.

In Janet's framework, higher levels of psychological functioning require higher psychological tension. Attention and will, being of high tension, concentrate energy. Janet often recommended exerting oneself and engaging in work as ways of raising the tension that in neuroses and psychoneuroses has dropped too low (Sjövall, 1967). Dabrowski also had a concept of psychological tension, but his was different because it grew out of his study of suicide and self-mutilation. He saw a connection between emotional tension and intensity of experience that led him to identify five ways of processing tension—the five overexcitabilities.

Another of Janet's concepts is “prise de conscience de soi même,” which he regarded as a law of mental development. It is about a sudden convulsion in one's beliefs, a transformation. To be conscious of something is to first feel it (Janet, 1929). Dabrowski often referred to this concept: “It is an act of illumination, as it were, an act of a sudden understanding of the sense, the causes, and purposes of one's own behavior. As a consequence of repeated acts of *prise de conscience de soi-même* arises the ‘subject-object’ dynamism” (Dabrowski, 1967, p. 104).

Dabrowski valued the work of Charles S. Sherrington (1946) as being particularly close to the theory of positive disintegration. Mental activity and the rich life of the human psyche cannot be reduced to the electric activity of the brain. Dabrowski noted, “Where there is a mind, there is

suffering, and the higher the life, the more suffering, which leads to the question of values" (1964a, pp. 178–179).

The Directive Role of Emotion and Feeling

The deep distress and anxiety characteristic of psychoneuroses were always viewed as mental illness. To Janet, psychoneurosis was an arrest in development and a prelude to a more severe mental illness. Rather than mental illness, Dab-rowski asserted that psychoneurosis is in fact the inevitable process of emotional growth and personality development (Dabrowski, 1972). His basic argument was that rather than being negative, psychoneurotic symptoms signal changes in the process of emotional development, the beginning of inner life.

Dabrowski's professor in Warsaw, Jan Mazurkiewicz, "the father of Polish sci-entific psychiatry," was Janet's student in Paris (Kaczynski, 1975). Mazurkiewicz (1930) stressed that at the higher levels of the nervous system, and especially in the cortex, mental processes become autonomous and can be self-generated. He also stressed the directive role of feeling. Dabrowski frequently referred to Ma-zurkiewicz's pioneering ideas. Years later, when emotions were still considered by psychologists as too fuzzy to measure, and cognitive psychology ruled the day, Dabrowski (1964a) asserted, "feelings and emotions constitute the deepest essence of the psyche" (p. 193). It took another 20 years before the study of emotions moved into the mainstream. Psychology was rediscovering emotions after years of neglect, even though their importance had been noted by Charles Darwin and William James in the nineteenth century. Today we know that cognition cut off from feeling becomes ineffectual (Damasio, 1994). Dabrowski's theory is surprisingly consistent with current views of the role of emotions in personality development (Brandstatter & Eliaz, 2001; Davidson & Begley, 2012; Eisenberg, Fabes, Guthrie, & Reiser, 2002; Izard & Ackerman, 2000; Magnavita, 2002).

The Many Levels of Inner Life

Like Kierkegaard, Dabrowski felt that externally oriented people have no inner life. The inner processes appeared to him as a drama on the stage of a person's psyche which he called *inner psychic milieu*. Most likely, this was

the starting point for his conception of levels and his *multilevel* approach to analyzing behaviors and inner experience. According to Dabrowski, the many aspects of individual and social life could be sorted out into different levels, each representing different values. For instance, empathy or emotionality, self-protective or existential fear, raucous laughter or a smile that reveals subtlety and emotional depth would not coexist in the same individual:

> Existential fears, obsessions, and depressions turned out to be unrelated to egocentric fears, obsessions and depressions. The first were the result of excessive sensitivity, disappointments, sadness, and suffering; the second were most often the result of lack of success in life, thwarted ambition, material losses—in short, of primitive egocentrism shaped by external stimuli. (Dabrowski, 1975, pp. 235–236)

In his view, individuals with less serious mental disorders were rich in creative and developmental potential. They were "not reconciled to their concrete reality but rather opposed to it," and instead "manifested trends and efforts in search of a reality of a higher level. And often they were able to find it unaided" (Dabrowski, 1975, p. 236). In this manner Dabrowski not only extolled the breadth and depth of creative vision but also the anguish of those who see and feel far beyond the mundane. Tension between the higher and the lower in oneself drives this process—a journey to selfhood from the "what is" to the "what ought to be," that is, the level at which an inner ideal becomes a guiding force.

Because the process takes the person by surprise, Dabrowski called it *spontaneous*. Because of the vertical tension, he called it *multilevel*, and because it shakes up the psyche, a *disintegration*. This process is probably most agonizing for those who find it difficult to advance when they are all alone without even written guidance or a description that fits their experience. The lives of Eleanor Roosevelt, Etty Hillesum, the mystics, and the cases Dabrowski collected illustrate the process beautifully (Mróz, 2009; Nixon, 2008; Piechowski, 2008).

The criterion of the Dabrowskian developmental process is what kind of change is taking place in the inner psychic milieu. When tensions and conflicts keep recurring without self-examination and essential change in

personality, the process is called *unilevel*. When significant, hard won personality change is taking place as a result of inner transformation, the process is called *multilevel*. The title of one of his Polish books expresses poignantly his view: *The Toil of Existence*.

Dabrowski's levels do not describe a sequential unfolding. Only with the emergence of the inner psychic milieu does the process continue to the higher level where persons become more in charge of their inner growth. Finally, full selfhood represents a life of both inner peace and high level of energy to serve, as exemplified in the lives of Mahatma Gandhi, Pope John XXIII, the Dalai Lama, Bishop Tutu, Mother Teresa, or Peace Pilgrim. A few case examples of this lofty developmental plane have been examined in detail (Nixon, 2008, 2010; Piechowski, 2009).

As stated earlier in this chapter, Dabrowski was also a poet. To express the inner life of all the vulnerable and sensitive creative individuals whom he valued but wanted to protect, he wrote under the pseudonym of Pawel Cienin (1972a, 1972b) *Fragments from the Diary of a Madman* and *Thoughts and Aphorisms.* Here is a passage from *Fragments* (p. 11), illustrating the call of the ideal and the arduous ascent toward it:

> Oh, my home—my distant home.
> Oh my town from years of inspiration.
> I'm going through hanging streets,
> I'm hanging in spaces,
> In the strangeness and remoteness of the soul …
> I fall down and startle myself,
> And I rise in hesitation and resistance.
> And I fall down and again stand erect
> And I'm going, going farther …

His play *Nothing Can Be Changed Here*, about a psychologist treated as a mental patient, is still unpublished.

Developmental Potential

Gifted and creative individuals feel acutely the difference that separates them from others in the way of perceiving, experiencing, and operating in

the world—the mundane reality in contrast with a visionary reality. One could say that Dabrow -ski's theory is about this difference; it is an attempt to map out the psychological development of those who know they are different and that others don't see, don't think, don't experience things the way they do.

A knowledge of Dabrowski's theory, supported by case studies, enables counselors to assist the gifted adolescent, or adult, according to the kind of growth process taking place (Dabrowski, 1972; Jackson & Moyle, 2009a, 2009b; Jackson, Moyle, & Piechowski, 2009). For example, in her study of depression in intellectually gifted and emotionally intense adolescents, Jackson (1998) found that some youths worked their way through the depression and grew emotionally true to the concept of multilevel growth, but others did not—their crisis did not precipitate a notable expansion of consciousness.

Although the multilevel component forms an essential part of *developmental potential*, it has received less attention than the qualities of intense experiencing— the five overexcitabilities. Higher levels of energy, sensory richness and sensitivity, creative imagination, emotional intensity, depth, sensitivity, persistent problemsolving, and especially problem-finding, add up to a heightened intensity of experiencing that is often not well tolerated. Worse, the overexcitabilities may be pathologized as something to be fixed. These qualities, readily recognized in the gifted and talented, have been embraced by parents, counselors, and the gifted themselves as being true of them.

Developmental potential can be assessed on the strength of overexcitabilities. To assess developmental level, Dabrowski used a classic neurological examination; it correlated well with other methods. Overexcitability as a characteristic of the gifted and creative was shown to have cross-cultural validity (Falk, Yakmaci-Guzel, Chang, Sanz, & Chavez-Eakle, 2008). Four other empirical tests of the theory have been described (Piechowski, 2008). Two recent volumes offer a thorough introduction to Dabrowski's theory and its application to the understanding of the developmental issues of gifted children and adults (Daniels & Piechowski, 2009; Mendaglio, 2008). Here we offered only the briefest outline of the main concepts.

A Unique Lens on Giftedness

Kazimierz Dabrowski's theorizing has contributed significantly to the broadening conceptualization of giftedness, beyond academic achievement and eminence. Based on his clinical practice and research, Dabrowski noted that gifted and talented individuals tended to experience the world and themselves in qualitatively different ways. In his conceptualization, Dabrowski emphasized the primacy of emotion, explicitly relegating other factors, including intelligence, to subservient roles. Dabrowski's theory of positive disintegration provides scholars, researchers, practitioners, and parents a unique lens through which to view giftedness with emotion taking center stage.

Unlike other theoretical contributions that have broadened the conceptualization of giftedness, for example, Marland's (1972) expansion from unidimensional to multidimensional, Dabrowski's theory has contributed to a re-conceptualization of giftedness itself. Emotional giftedness (Mayer, Perkins, Caruso, & Salovey, 2001; Piechowski, 1997), giftedness as asynchronous development (Silverman, 1997, 2012), identification of giftedness (Carman, 2011), and self-actualization and morality of the gifted (Ruf, 2009) are a few examples of Dabrowski's influence on our current conceptualization of giftedness. The pilot research by Mayer and his associates (2001) is particularly important because it showed that positive maladjustment appears at the high end of emotional intelligence and that it characterizes emotional giftedness. In addition, other contemporary theorizing such as giftedness as greater awareness (Roeper, 1982), spiritual giftedness (Lovecky, 1998), and heightened multifaceted sensitivity (Mendaglio, 2003) resonate with Dabrowski's theory and receive indirect support from it. In general, TPD has had the effect of ending the stranglehold that cognition and material achievement had on the field of gifted education. Scholars, adopting a Dabrowskian perspective on giftedness, have reinforced the importance of a holistic approach to giftedness—to concern ourselves with the emotional, moral, and spiritual dimensions of gifted individuals, not simply to focus on meeting their intellectual needs, but rather the development of the whole person. As such, TPD contrasts sharply with conceptions of giftedness that emphasize productivity (Renzulli, 1978; Gardner, 1999; Sternberg, 2000). Interest in TPD's conception of giftedness is on the rise, despite renewed attempts to

reduce giftedness to an external criterion of achievement (Subotnik, Olszewski-Kubilius, & Worrell, 2011).

Researchers have also been captivated by Dabrowski's theory. Soon after its introduction to gifted education (Piechowski, 1979), TPD inspired empirical investigations. Initially, a small group of American researchers (Miller & Silverman, 1987; Piechowski, Silverman, & Falk, 1985) investigated several components of the theory, namely, overexcitability, dynamisms, and levels of development. Their samples included gifted and nongifted adults and practicing artists. More recently, we have seen a proliferation of research conducted nationally and internationally (Falk & Miller, 2009). From the earliest application of TPD to the field of gifted education, there was interest in using overexcitability (OE) as an alternate method of identification of giftedness to the typical use of tests of cognitive ability (Ackerman, 1997; Bouchard, 2004). Comparative studies using samples of gifted and nongifted participants is another theme, with investigators reporting general support for the hypothesis that gifted participants tend to score higher on measures of overexcitability (OE) than nongifted (Limont, Dreszer, & Bedynska, 2009; Siu, 2010; Tieso, 2007). In recent years, interest in OE has expanded to investigating its potential association with other variables such as self-concept (Gross, Rinn, & Jamieson, 2007), perfectionism (Garces-Bacsal, 2011), and leadership (Yakmaci-Guzel & Akarsu, 2006). What began as the sole province of a handful of American researchers has become a focal point of a growing number of studies in gifted education.

Educators and psychologists have also found TPD a powerful conceptual tool in their attempts to understand gifted youth and to deal with misconceptions about giftedness. To understand giftedness, Dabrowski's ideas have been applied to various phenomena such as intensities and sensitivities often associated with giftedness (Silverman, 1993), social and emotional needs of gifted students and their assessment (Gust, 1996; Tieso, 1999), spiritual development (Morrissey, 1996), counseling gifted persons (Hazell, 1999; Mendaglio, 2007; Ogburn-Colangelo, 1979; Silverman, 1993), and suicide (Gust-Brey & Cross, 1999).

Furthermore, TPD has been used to address frequent misunderstandings of the manifestations of giftedness, which have negative consequences for gifted youth. Gifted children's high energy level is often viewed as uncontrollable hyperactivity, emotional sensitivity as immaturity, creative

imagination as daydreaming, intellectual curiosity as questioning authority (Daniels & Piechowski, 2009). More problematic is the potential for misdiagnosis of gift-edness as range of psychiatric disorders such as attention deficit hyperactiv-ity disorder, obsessive-compulsive disorder, and oppositional defiant disorder (Amend, 2009). A Dabrowskian view of giftedness reduces the potential for misconception and misdiagnosis by placing behaviors perceived as problematic in the framework of a developmental process.

TPD is a theory of personality development built by Dabrowski using gifted individuals as his model. Though not a theory of giftedness per se, there is little doubt that TPD has contributed significantly to the current field of gifted education. Dabrowski's influence pervades the field; it is difficult not to encounter his concepts, particularly his concept of OE, in virtually every area of our field including counseling (Cross & Cross, 2012; Mendaglio, 2007; Silverman, 1993), curriculum (Karnes & Bean, 2005; VanTassel-Baska, Cross, & Olenchak, 2009), social and emotional development (Cross, 2011; Neihart, Reis, Robinson, & Moon, 2002), and parenting (Daniels & Piechowski, 2009). TPD has served to expand our conception of giftedness in a broad array of domains in the field of gifted education.

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15

BUILDING PRACTICE, ADVOCACY, AND POLICY

Ann Robinson

The 1950s and 1960s are often characterized as quite different periods despite historians' warning of the conceptual dangers of drawing artificial boundaries around epochs. Nevertheless, there are popular images of these two decades. The 1950s are milkshakes at the local soda fountain and co-eds in skirts with appliquéd poodles; the 1960s were tie-dyed and rocked by exuberant music, political turbulence, and student activism on college campuses. The key figures whose work in gifted education appears in this section of *Illuminating Lives* experienced both kinds of zeitgeist.

In addition to *Brown v. the Board of Education* and the launch of Sputnik I, the 1950s saw George and Annemarie Roeper integrate the Roeper School and its faculty. In the 1950s, Harry Passow established the Talented Youth Project (TYP) at Teachers College. Aided by a collaborative team, the influence of Teachers College in gifted education resurged in ways not seen since the days of Leta Hollingworth. Paul Brandwein anticipated the need to develop talent in the sciences two years before the launch of Sputnik I (Brandwein, 1955). In 1953, Ann Fabe Isaacs founded the National Association for Gifted Children (NAGC). The first of the journals devoted solely to gifted education, the *Gifted Child Quarterly*, appeared shortly after the founding of NAGC, its parent organization. A key edited text, *The Gifted Child* (Witty, 1951), appeared as the fruits of the American Association for Gifted Children (AAGC), co-founded by Ruth May Strang, whose life and work also appear in this section. In 1958, The Association for the Gifted (TAG) was organized as a division of the Council for Exceptional Children (CEC). From her anthropologist's perch at the

American Museum of Natural History, Margaret Mead published a short article, “The Gifted Child in the American Culture of Today,” in which she excoriated the anti-intellectualism she felt affected the affordances for bright children (Mead, 1954). Although often known as the *Silent Generation*, the gifted education scholars and activists of the 1950s were anything but silent on the topic. They wrote. They worked with schools on large-scale projects. They founded advocacy organizations to advance a cause that had developed into the gifted child movement.

On the policy and political scene, Dwight D. Eisenhower's 1960 White House Conference on Children and Youth included background papers on the gifted and talented provided by Harry Passow. Virgil Ward's *Educating the Gifted: An Axiomatic Approach* set forth principles that defined and gave philosophical weight to the concept of differential education and ultimately for differentiated curriculum for the gifted. In 1964, the Civil Rights Act was signed into law by President Lyndon Johnson.

Other key events relevant to gifted education took place in the 1960s. For example, John C. Flanagan established Project Talent, a large-scale longitudinal study of the *aptitudes and aspirations* of 400,000 young people (Project Talent, n.d.). Victor and Mildred Goertzels turned their fascination with the biographies of talented individuals into a book that explored the antecedents of their development, Cradles of Eminence. The Torrance Tests of Creative Thinking were first published in the 1960s, as was Mary Meeker's initial work on the application of J. P. Guilford's Structure of the Intellect theory to diagnostic and intervention efforts for children (Meeker, 1969). Finally, as the 1960s came to a close, we approach the key event that bookends the century of contributions to gifted education: the published findings of the Marland Report.

The final section of *Illuminating Lives* begins with Miriam L. Goldberg. As the author of her chapter, James Borland, notes, Miriam is likely to be one of the lesser-known individuals in the history of gifted education. However, as he and her colleague and collaborator the late Harry Passow realized, she deserves to be the first figure through the doorway to curriculum, advocacy and policy. She was a mainstay at Teachers College during the heyday of the Talented Youth Project (TYP) and contributed some of the earliest empirical literature on the phenomenon of underachievement among talented children and adolescents.

The focus of the next chapter, A. Harry Passow, was a model of educational productivity, scholarly acumen, and political diplomacy. As an early career scholar, he established the Talented Youth Project (TYP). Harry's 1950s publications reveal his interest in the pragmatic issues of how to develop curriculum and organize programs for talented youth. His commitment to what were then termed *disadvantaged children*, particularly from urban areas was steady and in some cases politically risky and high profile as in the case of his work with the Washington, DC schools.

Contemporaneously, Virgil Scott Ward was converting his dissertation to a brief but dense and difficult work that carved out philosophical and curricular territory for gifted education. Not content to make suggestions or recommendations, Ward laid out rigorous principles and axioms to guide the education of talented youth. Later, he would put those principles into practice with his design of the North Carolina Governor's School.

Finally, *Illuminating Lives* closes with three individuals whose main contributions to gifted education were in the twin arenas of advocacy and policy. Two of these individuals founded advocacy organizations. Ruth May Strang established the American Association for Gifted Children (AAGC) with Pauline Williamson in 1946; Ann Fabe Isaacs followed with the National Association for Gifted Children (NAGC) in 1953. In 1971, Sidney P. Marland Jr., Commissioner of Education, delivered a report to the United States Congress with a definition and a set of recommendations to address the needs of gifted children (Marland, 1972). The Marland Report, as it came to be known, set the stage for optimistic planning on behalf of talented youth and the schools that served them. These individuals *made things happen* for talented youth.

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16

MIRIAM L. GOLDBERG

A Scholar of First Rank (1916–1996)

James H. Borland

There is not a great deal in the public record concerning the life of Miriam Goldberg. What I was able to discover comes from a *New York Times* obituary (Miriam Goldberg, 1996); a letter to the faculty from Karen Zumwalt (1996), who was then the Dean of Teachers College, announcing Professor Goldberg's death; and, ironically, an “In Memoriam” piece I wrote for the *Gifted Child Quarterly* (Borland, 1997), some of the details of which I had shamefully forgotten. I also found unpublished material about Miriam Goldberg, her colleagues, and the Talented Youth Project in the archives of the Gottesman Libraries at Teachers College.[1]

Miriam Levin was born in 1916 in Baku, Azerbaijan, which was then in Czarist Russia. When she was five years old, she and her family immigrated to the United States, living first in Harlem and then in the Bronx. Miriam was educated in Ethical Culture Schools and graduated with a high school diploma from the Fieldston School, an independent school associated with the New York Society for Ethical Culture. In 1936, she received her teaching diploma from the Ethical Culture Teacher Education Department.

That same year, at age 20, Miriam married Carl Goldberg, an artist and teacher. From 1937 to 1945 the Goldbergs taught together at the Grove School, a residential school for emotionally disturbed children in Madison, Connecticut. In 1945, the couple returned to New York City, where Miriam became the director of a nursery school in the Bronx, and Carl became head of the art department at DeWitt Clinton High School, also in the Bronx.

The following year, Miriam earned her B.A. in Curriculum and Teaching from Teachers College, Columbia University, which then had an undergraduate program. She went on to earn an M.A. in psychological services and, in 1955, a Ph.D. in clinical psychology, both also from Teachers College. Her Ph.D. dissertation was entitled *Leadership and Self-attitudes*. She joined the Teachers College faculty in 1955 and taught at the College until her retirement in 1981.

During the 1950s and 1960s, Miriam was closely associated with the Talented Youth Project, which began in 1953 and operated under the auspices of the Teachers College Horace Mann-Lincoln Institute (Passow, 1955). Her two closest collaborators at the project were A. Harry Passow (see the Robinson and McFar-land chapter, this volume) and Abraham J. Tannenbaum, both notable figures in the history of gifted education in the United States.[2] It is probable that Miriam joined the project upon her ascension to the Teachers College faculty since she was one of the authors of a 1955 Talented Youth Project publication (Passow, Goldberg, Tannenbaum, & French, 1955).

Miriam's early years at Teachers College coincided with a critical period in the history of the field of gifted education. The Soviet Union launched Sputnik 1 in October 1957, and this sparked a frenzied, if short-lived, period of enthusiasm for gifted education. The works Miriam produced during this, her most productive period, will be discussed below, as will the collaborative nature of the work the Talented Youth Project spawned.

Carl Goldberg died in 1972. In the years preceding his death, he had been a member of the adjunct faculty of Teachers College, and he served for a number of years as acting principal of DeWitt Clinton High School.

Miriam retired from the Teachers College faculty in 1981 but remained engaged at the College. She was an active member of the Emeriti Committee, and she taught and lectured from time to time. Her last appearance at Teachers College was at the memorial service for Harry Passow in October 1996, where, undiminished by the need for an oxygen supply, she rose from the floor to share her memories of Harry.

Miriam L. Goldberg died on November 21, 1996, at St. Luke's Hospital in New York of emphysema, from which she suffered for a number of years. She was survived by a son, a practicing clinical psychologist in Pennsylvania, two sisters, one sister-in-law, and two granddaughters.

The love and respect Miriam's students felt for her is reflected in the fact that several of her graduates established the Miriam Levin Goldberg Research Prize at Teachers College, which was awarded to students in developmental and educational psychology who had written outstanding dissertations.

Personal Reflections

Although I cannot claim to have been close to Miriam Goldberg, I was privileged to know her near the end of her life and to spend some time with her. For years, I coordinated an off-campus branch of our doctoral program in gifted education on Long Island. I think it was Abe Tannenbaum who suggested to me that Miriam might be willing to teach *Nature and Needs of Gifted Students*, one of our core courses, which was started by Leta Hollingworth decades before. I approached Miriam, and to my delight and amazement, she agreed to teach the course, with one proviso: that I drive her to the Long Island campus where our classes were held so that she could avoid the rigors of the New York City subway system and the Long Island Railroad.

Our trips proved to be a delight. Miriam was a small, gnomish person with a sometimes wicked twinkle in her eye, a voice rendered gravelly by years of cigarette smoking, and a razor-sharp intelligence. We discussed education and psychology, people and current events, and the miles flew by. But what I most remember is her effect on her students. This is what I wrote for the remembrance in the *Gifted Child Quarterly:*

> Her class consisted of entering Ed.D. students, for the most part educators in mid-career who had distinguished themselves in M.A. programs but had no experience with course work at a research institution. My approach had always been to initiate the students gradually into the rigors of doctoral work, but this was not Miriam's way. She more or less hit them with both barrels. Her assignments were back breaking, her expectations for the quality of the students' work very high, and her comments in response to student contributions to class discussions honestly critical and devoid of euphemism. These were students who were not used to being told— especially this directly—that they did not know what they were talking about and that

they needed to do some reading and thinking before they ventured to offer an opinion on the subject again.

What was most interesting and instructive to me was how the students reacted to being worked beyond their worst expectations and being criticized in no uncertain or delicate terms. They loved it. Miriam commanded immense respect, and somehow in return she communicated respect for her students as people who could grow into the kind of scholars she expected them to be. She never sold them short, and she certainly never debased the currency of her praise by overspending it. The students treasured this and developed a degree of respect for Miriam that I have seen in few other academic circumstances. It was, for me, a lesson in professionalism, in academic rigor, and in how to build real self-esteem in students. (1997, p. 56)

The Work

Most of Miriam Goldberg's published work is collaborative in nature. This has both positive and negative implications for one who would analyze and write about her career. The positive aspect derives from the respect engendered by the synergistic nature of the Talented Youth Project. The power of creative collaboration is well documented (e.g., John-Steiner, 2000). The quality and quantity of the output from this project reflects both the acuity of the minds involved and the environment for scholarly productivity the project created for those minds to do significant work.

The negative aspect is that, for one who would write about Miriam Goldberg as an individual, it becomes difficult, if not impossible, to separate her contribution from those of her collaborators. I will not try to disentangle Miriam's input from that of her colleagues; I do not think that is possible, and perhaps it is not desirable. I will, therefore, discuss the collaborative works as organic wholes without attributing authorship or ideas to any one individual.

Choosing the Publications

Miriam Goldberg published quite a few papers, monographs, and books over the course of her scholarly career. I used the following criteria to winnow the total down to a manageable few. First, with one exception, the

works chosen bear directly on gifted education. The exception is *Education of the Disadvantaged* (Passow, Goldberg, & Tannenbaum, 1967), which Miriam co-edited and to which she contributed two single-authored chapters. Second, the works had to be books or monographs of general interest, which excludes reports on specific programs and proposals written for internal consumption at Teachers College.

I will, therefore, focus on five works: *Planning for Talented Youth* (Passow, Goldberg, Tannenbaum, & French, 1955), *Research on the Talented* (Goldberg, 1965), *The Effects of Ability Grouping* (Goldberg, Passow, & Justman, 1966), *Bright Under-achievers* (Raph, Goldberg, & Passow, 1966), and the aforementioned *Education of the Disadvantaged* (Passow, Goldberg, & Tannenbaum, 1967).

Planning for Talented Youth (1955)

This monograph, published in 1955 as a Horace Mann-Lincoln Institute of School Experimentation Pamphlet and written by A. Harry Passow, Miriam Goldberg,[3] Abraham J. Tannenbaum, and Will French, has as its full title: *Planning for Talented Youth: Considerations for Public Schools*. It is brief, comprising 72 pages of text, exclusive of references. The references themselves are interesting. Altogether, 162 works are cited, a reminder that scholarship in gifted education had already generated a considerable body of work nearly six decades ago. Of these, 27 are marked with an asterisk and "suggested for a basic school library on talent" (p. 75). These are works that some of us remember as classics in the field—the fourth volume of *Genetic Studies of Genius* (Terman & Oden, 1947), Hollingworth's *Gifted Children: Their Nature and Nurture* (1926), Paul Witty's *The Gifted Child*, an edited volume for the American Association for Gifted Children (1951), and others—along with works that, from my perspective, have been forgotten or were never known.

This monograph is the first publication of the Talented Youth Project, and it provides a good introduction to the project's work. According to the authors, the work of the project had three aspects: "(a) preparing materials that summarize and interpret research on the talented and their education; (b) providing assistance to schools in the development of their own research and experimental programs for the talented; (c) conducting basic studies in the nature and function of talent"[4] (p. v). As for the monograph itself, its

purpose is stated thusly by the authors: “This pamphlet… summarizes and interprets theory and research in order to stimulate schools to give more thorough and systematic attention to the identification and nurture of talent” (p. v). The authors state that their major concern is the work of secondary schools, although they hope that the monograph's contents will be of use to elementary school educators as well.

The monograph begins with a brief history of the field, starting with provisions for more frequent promotions in the St. Louis schools in 1868 and citing the first school for gifted students in Worcester, Massachusetts, in 1901. Although acceleration had been the focus of earlier efforts to educate gifted students, the authors state that, as of 1955, “current practices in schools throughout the country continue to reveal a strong partiality to enrichment as opposed to acceleration” (p. 3). The state of the field in the mid-1950s is lamented; a study from Ohio is cited that showed that only two percent of schools in that state reported having gifted-education classes. What is interesting about this historical account is how truncated it appears to be (and, of course, from our perspective, is), since it was written before the launching of Sputnik I by the Soviet Union in 1957.

The monograph provides a remarkably concise and comprehensive overview of gifted education circa 1955. Following the historical overview and discussion of the field as it then existed, the authors discuss arguments against gifted education and what they see as flaws in those arguments. They then present sections on identification of gifted students, administrative adaptations or program formats, enrichment and teachers of gifted students, and program evaluation.

What is striking is both what is different, relative to our concerns in the second decade of the twenty-first century, and what is the same. I was struck by the frequency with which phrases such as “At present, little is known about…” appear in the text. This reflects either a relatively nascent field whose members did not have the benefit of the corpus of research available to us now or a greater degree of honesty and tolerance for ambiguity than is the norm today. However, much of what the authors discuss in this Eisenhower-era document cannot help but strike today's reader as utterly familiar. The authors address concerns about elitism, ability grouping, the possibility of effective differentiation in heterogeneous classrooms, testing issues,[5] misplaced concerns about acceleration, various

forms of enrichment, qualities of effective teachers of gifted students, and the difficulties involved in program evaluation. *Plus ça change*….

Research on the Talented (1965)

Jumping ahead 10 years, we encounter another Horace Mann-Lincoln Institute "pamphlet,"[6] solely authored by Miriam Goldberg.[7] For people of my generation, the LBJ[8] years may seem less remote than the I-like-Ike years, but this still represents a period in the development of the field when a great deal was yet to take place before we arrived at the state of the field of gifted education that confronts us today.[9]

Nonetheless, there is evidence of much having happened in the 10 years intervening between *Planning for Talented Youth* and this work. Sputnik I was eight years in the past, and many of the post-Sputnik gifted education programs had already come and gone (Tannenbaum, 1983). The reference list for this brief work (54 pages) contains 176 entries, and there is an additional bibliography with 13 sections and more publications than I cared to count. New names appear in this reference list, names more likely to be familiar to many of today's readers, such as Barbe, Feldhusen, Getzels and Jackson, Gowan, Guilford, Karnes, MacKinnon, Pegnato, Pressey, Taylor, and Torrance. Clearly, the preceding decade had, despite the evanescence of so many of the post-Sputnik gifted programs, witnessed significant progress in the scholarship concerning gifted students. As Miriam writes in her introduction, "Within the last decade, concern with the education of superior students has resulted in a sizeable crop of studies" (p. 1).

The author's intent in this monograph is stated as follows: "The report will compare some recent findings with those from past research… [and] examine the extent to which current projects are seeking solutions to perennial problems which have remained unsolved and report efforts to study uncharted ground" (p. 1). In other words, this work is an extensive review of the literature as it existed in the mid-1960s. The literature reviewed is grouped into 10 sections, each dealing with a major topic in the field, such as "Social and Personal Characteristics," "Identification of the Talented," "Intellectual Factors," and so forth. I will not delineate them all here, but I will briefly discuss some of what are, to me, the more noteworthy passages.

Miriam's gives deserved prominence to Terman's work and includes the common observation that, although the "Termites" became "able adults… superior in nearly every aspect," few of them made "an outstanding contribution in any of the arts or letters" (p. 5).[10] In addition, she notes perceptively that "certain socio-economic and racial groups were not adequately tapped and… some schools were searched less thoroughly than others" (p. 6).

The section on identification contains what were then conventional analyses of such things as the stability of IQs, but it also has a significant section on the assessment of creativity, which then consisted largely of tests of divergent production. The work of Guilford on his Structure of Intellect Model (SOI, e.g., 1959)[11] and Torrance and his attempts to measure creativity (e.g., 1962) are given an appreciable amount of space, suggesting the centrality the topic of creativity would assume in the field of gifted education in the years ahead. Miriam also examined the highly influential work of Getzels and Jackson (1958, 1962), although in a less credulous manner than most in the field, noting, for example, that the mean IQ of their "Low IQ-High Creativity" group was 127. Clearly, 15 years after Guilford's landmark APA Presidential Address (1950), creativity had become quite at home in the gifted education field.

The monograph contains a relatively long section (pp. 24–34) on the "discrepancy between prediction and achievement," or underachieving gifted students. Miriam's interest in this topic is reflected in the amount of space devoted to it and in a citation to Raph, Goldberg, and Passow (1966), then in-press.

The section on administrative provisions consists mostly of a discussion of research on ability grouping, not surprising considering the nearly simultaneous publication of this monograph and another in the same series (Goldberg, Passow, Justman, & Hage, 1965) which was expanded into the full-length book, *Bright Underachievers*, the following year (Goldberg, Passow, & Justman, 1966).

A concluding section, entitled "Concerns for Schools," reflects both the period in which it was written and perennial issues in gifted education. That the field was still fixed in the post-Sputnik era is clear from Miriam's warning that

> there is some danger that the immediate demands of the culture for more scientists and mathematicians will lead schools to urging able students into these fields at the expense of other intellectual endeavors in which many of them may be more talented. (1966, p. 53)

That we are still grappling with seemingly intractable issues she confronted can be seen in her identifying "the two great research needs today," these being "the field of content and method" and "the identification of talent among culturally[12] and economically disadvantaged groups in our population" (p. 53).

All in all, this densely-packed monograph is a fascinating time capsule, revealing the state of the art of gifted education close to a half century ago. This was a much different world from ours—still the 1960s of *Mad Men* rather than the 1960s of Timothy Leary, Abbie Hoffman, and Jimi Hendrix. In addition, it is a useful digest of a significant body of research, much of which has been forgotten despite its potential utility today. I recommend it to any serious student of the field.

The Effects of Ability Grouping (1966)

This fascinating book presents a detailed report of an extensive study of ability grouping, a topic as controversial then as it is now. The authors and researchers were Miriam L. Goldberg and A. Harry Passow, both familiar to us, and Joseph Justman, who was then Acting Director of the Bureau of Education Program Research and Statistics of the New York City Board of Education. What is remarkable about this study is that the researchers were able to achieve something close to an experiment, a sound quasi-experiment (Campbell & Stanley, 1966), initially encompassing over 3,000 public school children in Grade 4 who were followed for two years in Grades 5 and 6, in a variety of ability groupings. Clearly, Just-man's involvement greatly facilitated access to a large sample of schools, classes, and students, something today's researchers can only envy.

In his foreword, Arthur W. Foshay, a distinguished Teachers College scholar of curriculum and the Director of the Horace Mann-Lincoln Institute of School Experimentation, identified this as "the first large-scale educational experiment reported by the… Institute" (p. vi). He also wrote that, "Drs. Goldberg, Passow, and Justman have played the experimental

game by the rules; the stubborn testing and detailed reporting of the hypotheses of this study should serve both as a source of knowledge and as a model of detached educational inquiry" (p. v).

The authors describe the purpose of the study as follows: "The specific purpose of this study was to explore differences—in achievement and learning patterns, social and personal relations, interests, and attitudes toward self and school—among intermediate grade children when grouped in classes with various ranges on intellectual ability" (p. 24). There is an actual null hypothesis: "*Neither the presence nor the absence of gifted or slow pupils, nor the range of abilities in any given classroom, nor the relative position of a particular ability level within the range will effect* [sic] *the attainment of elementary school pupils*" (p. 24; italics in the original).

Ability was defined operationally through the use of IQ test scores, specifically the Otis Alpha.[13] Students were assigned to one of five ability levels corresponding to IQ ranges. Level A consisted of students scoring 130 and higher, Level B of students scoring in the 120 to 129 range, and so forth down to Level E, which consisted of students with scores of 99 and lower. In all, over 3,000 students,[14] 45 schools,[15] and 86 classes were involved in the study.

The design was complicated. The researchers created 15 class grouping patterns with varying degrees of homogeneity. There was one arrangement that was homogeneous for each of the five levels (e.g., Pattern I consisted of classes with only Level A students, Pattern VI classes with only Level B students, Pattern XV classes with only Level E students). By contrast, Pattern V consisted of students from all five levels, Pattern IV of students from Levels A through D, and Pattern IX of students from Levels B through E. There were also patterns consisting of two and three levels. However, the main unit of analysis was not the 15 patterns but the 35 levels within various patterns (e.g., how did Level A students fare in the extremely heterogeneous Pattern V compared with how they fared in four other patterns; Level C students were compared across nine patterns).

The only independent variables related to grouping—presence or absence of gifted or "slow" students, the range of IQs in the classroom, and the relative position of students of a given IQ level vis-à-vis other students in the classroom. As the authors wrote, "No effort was made to examine the content or teaching style in any classroom or to gather information on what

modifications—in substance or method—teachers believed they were making in the face of broader or narrower ability ranges" (p. 151).

It should be pointed out that the generalizability of the study is limited. The schools that cooperated with the researchers and that had sufficient numbers of students scoring 130 and above on the Otis Alpha were in the city's more affluent areas and served largely White middle-class families. This of necessity lessens the relevance of the findings, which otherwise remain useful, in a more diverse and multicultural educational world than the one the authors encountered in the mid-1960s.

The findings are reported in some detail. I will only touch on the major outcomes and refer the reader to the book itself.[16] The most important finding is summarized by the authors as follows:

> The general conclusion that must be drawn from the findings of this study and from other experimental grouping studies is that, in predominantly middle-class elementary schools, narrowing the ability range in the classroom on the basis of some measure of general academic aptitude will, by itself, in the absence of carefully planned adaptations of content and method, produce little positive change in the academic achievement of pupils at any ability level. (p. 167)

This would appear to undercut the validity of tracking, still widely in use at that time, which simply sorted students into stratified classes on the basis of IQ or some similar global measure, typically without providing differentiation of any sort.

Another major finding was the following: "The study found no support for the contention that narrow-range classes are associated with negative effects on self-concept, aspirations, interests, attitudes toward school, and other nonintellective factors" (p. 168). In other words, forms of grouping that can be justified on curricular, instructional, and ethical grounds should not result in the many deleterious emotional, motivational, and attitudinal consequences their critics imagine.

In short, "Ability grouping is neither good nor bad. It is neutral. Its value depends on the way it is used" (p. 168). Thus, tracking, which sorts students into castes often largely defined by race and class, is harmful, not because it is a form of ability grouping but because it defies our notions of what education in a democracy should look like and how we should effectively

instruct students. Creating flexible reading groups in a first grade classroom cannot be condemned simply because it is a form of ability grouping (although *ability* is probably not the best term here) if it results in effective instruction in a respectful setting.

> Goldberg, Passow, and Justman's closing passage is worth quoting here. It is, therefore, essential to recognize that no matter how precise the selection of pupils becomes or how varied and flexible the student deployment may be, grouping arrangements, by themselves, serve little educational purpose. Real differences in academic growth result from what is taught and learned in the classroom. It is, therefore, on the differentiation and appropriate selection of content and method of teaching that the emphasis must be placed. Grouping procedures can then become effective servants of the curriculum. (p. 169)

The Effects of Ability Grouping is a major contribution to research on an extremely important topic in American education. In light of the care that went into its design, the work that was involved in the collection and analysis of the data, and the insight and wisdom that informed the study's conclusions, it is not surprising that it has remained a landmark in the field and is still cited today.

Bright Underachievers (1966)

This book, published in the same year as *The Effects of Ability Grouping*, is credited to Jane Beasley Raph, Miriam L. Goldberg, and A. Harry Passow. The last two individuals need no introduction at this point, but Jane Raph does.[17] Raph was, at this time, Professor of Early Childhood Education at Rutgers University and was just finishing a stint as Research Associate in the Department of Psychiatry at New York University's School of Medicine. She had received her doctorate from Teachers College in 1955, where she had been, according to Duchan (n.d.), a “research associate,” which may explain her association with her Teachers College colleagues. Raph's best-known work was a co-authored book (Schwebel & Raph, 1973) on applying the ideas of Jean Piaget to classroom practice.

Bright Underachievers begins with a nuanced discussion of “the problem of scholastic underachievement” (p. ix), which is followed by a

comprehensive review of the literature that existed at that time on the topic. The remainder of the book consists of accounts of studies of underachievers at Evanston Township High School in Evanston, Illinois, and DeWitt Clinton High School (where Carl Goldberg taught) in the Bronx, New York. The two Evanston studies are descriptive, whereas the DeWitt Clinton study is experimental, representing an attempt to increase the achievement of bright underachieving students.

Reviewing this book in the *American Educational Research Journal*, Elazar Pedazur of New York University praised the introductory chapter and the "extensive and well-organized review of the literature" (p. 121), but he was very critical of the design of, and the interpretation of the data from, the three empirical studies. I agree with the former assessment and reluctantly concur with the latter.

To focus first on the weaknesses of the book, none of the three studies is without significant flaws. The authors themselves characterize the first Evanston study as "descriptive in nature" (p. 14). At that time, this was a characterization bordering on the pejorative, and the authors are almost apologetic in their preview of the study in Chapter One.

The second Evanston study compared five groups—underachievers, high achievers, overachievers, "low-ability pupils" (p. 94), and a random sample—on measures of "self-attitudes (p. 95) and "school-attitudes" (p. 108). It is quite likely that Miriam made a major contribution to the self-attitudes aspect of the study since her doctoral dissertation at Teachers College was entitled *Leadership and Self-attitudes* (1955). Unfortunately, as Pedazur points out, the statistically significant findings accounted for very little between-group variance, and most of what was accounted for was attributable to the inclusion of the low-ability group, "whose inclusion was not related to the study's main problem" (p. 123). Only one significant difference was obtained between the underachieving group and the achieving group.

The DeWitt Clinton study was an experimental intervention designed to test the efficacy of an approach to remediating underachievement.[18] Pedazur's is critical of this study as well, and reading Chapter Four of *Bright Underachievers* does nothing to soften his critique. Most problematic is the vague description of the treatment:

> The plan to group one class of bright underachievers together for homeroom and one subject matter class with a highly competent and understanding teacher grew out of the belief that ideal teaching was a reasonable approach to ameliorating learning problems, particularly when the teacher combined pedagogical skills with involvement in the school life of his students and awareness of their difficulties. (p. 140)

Informing the students of the purpose of the grouping constituted the remainder of the treatment. Assignment of students to groups (experimental and control) is not discussed, so it is not clear whether this was a true experiment or a quasi-experiment.

The findings are not particularly satisfying. The authors report that "there were insufficient data to quantify and treat statistically" (p. 117), a very significant limitation indeed. As a result of analysis of interviews, the authors report, "Certain trends emerged which might be considered representative of the situation of ninth and tenth graders whose school marks made it apparent that, even though they were intellectually able, they were encountering school difficulties" (p. 117).

Although the account of the three studies takes up the majority of the book's pages, it is the first two chapters that represent a contribution to the literature of the field. The first chapter on "The Problem of Scholastic Underachievement" contains a brief account of the history of the study of bright underachievers and a thoughtful discussion of some definitional issues related to the topic. The authors write, "If by underachievement is meant achievement below some standard expected or predicted on the basis of IQ scores, then the validity of using IQ scores for predicting overall school performance and performance in particular school subjects must be examined" (p. 10). They then proceed to discuss measurement issues, such as regression toward the mean and criterion heterogeneity (Thorndike, 1963). They also pose the following question, which strikes me as rather forward-looking for the mid-1960s: "Can giftedness be defined on the basis of one IQ measure?" (p. 10). Unfortunately, the subtlety of this discussion is not reflected in the manner in which Raph, Goldberg, and Passow operationalize underachievement in the Evanston and DeWitt Clinton studies.

Chapter Two consists of a 70-page review of the literature on scholastic under-achievement that recalls, in its thoroughness and scholarship,

Planning for Talented Youth (1955) and *Research on the Talented* (1965). The authors begin the chapter as follows: "The typical bright underachiever has been subjected to such a plethora of definitions, descriptions, and analyses that the information we have about him is at one and the same time so encompassing and so detailed as to make virtually impossible any thumbnail sketch" (p. 17). They then take the reader through summaries and analyses of literature grouped into eight categories ranging from personality factors to home conditions to school issues.

This book is a mixed bag. The studies represent a worthy but seriously flawed attempt to learn more about underachievement among bright students and its possible remediation. Fortunately, there is much in the first part of the book that repays a reading today. What Miriam's contribution to the whole was is impossible to tease out with any confidence. The review of the literature bears the same scholarly stamp as her single-authored *Research on the Talented* (1965), although whether that is a reflection of primary authorship of this chapter on her part or of the strong collaborative bond forged by the Talented Youth Project is a matter of speculation. In any case, whatever Miriam's role might have been, the book still has utility and, like the works previously examined, remains more than a historical curiosity.

Education of the Disadvantaged (1967)

This collection of readings, edited by A. Harry Passow, Miriam Goldberg,[19] and Abraham J. Tannenbaum is a collection of reprinted papers put together

> to bring to teachers (both Preservice and in-service), school administrators, paraprofessionals, and other persons who are involved with the education of the disadvantaged some insights and knowledge to enable them to better understand the pupils for whom they must plan more effective educational experiences. (p. iii)

As to the focus on the book, the authors write, "No attempt is made to define the disadvantaged population. Instead, the articles deal with the population living in economically depressed areas with special emphasis on racial and ethnic groups barred from the mainstream of American life—Negro, Puerto Rican, American Indian, or migratory farm worker" (p. iii).

The language employed throughout the book seems quaint, at best, by contemporary standards—always an unfair basis for judgment, of course. There are many mentions of "the Negro" and "the Negro problem"; all Latinos are Puerto Rican, à la *West Side Story*; and the rural poor are sometimes referred to as "hillbillies." There is also a Great Society optimism at work, a belief that progress can and should be made toward the goal of rooting out disadvantage, a belief being contested in our, in some ways, more dispirited (and perhaps mean-spirited) time.

In addition to the three editors, there are contributions from various luminaries whose names may still be familiar to those of us who lived through this period: Charles E. Silberman, whose *Crisis in Black and White* was required reading in many 1960s college classrooms; Robert J. Havighurst; Kenneth B. Clark; Fred L. Strodbeck, and David P. Ausubel. Miriam contributed two chapters to the volume, and they will be my focus here.

Factors affecting educational attainment in depressed urban areas. This paper was originally published in a volume edited by Passow (1963) and is reprinted in this volume. Miriam makes two telling points early on. The first concerns the growing literature on the urban poor: "In this great outpouring of concern with the problems of urban life, one area has been shockingly conspicuous by its absence—namely, education" (p. 33). In addition, "While the various disciplines concerned with urban problems have paid scant attention to education, the urban schools, in attempting to cope with the increasingly complex factors which affect their day-to-day operation, have too often failed to turn to the social sciences for theoretical and empirical bases upon which to construct their programs" (p. 33). In this chapter, she attempts to bridge the gap between education and the social sciences.

Miriam discusses the changing nature of urban life, immigration into urban areas, and the out-migration of the middle class. She describes conditions that were relatively new in 1967 but appear familiar today: the movement of the middle class from cities to suburbs,[20] the over-representation of African-Americans and Latinos among the urban poor, the shrinking of the manufacturing sector of the job market, and the growth of the service sector (which, Miriam points out, had created an increasing need for people who could run "electronic 'brains,'" p. 40).

At times, Miriam seems to stereotype, or at least generalize about, “lower-class” children and families. For example, she writes, “In general, the expressive style of the lower-class child can be described as more often motoric, concrete, ‘thing-oriented’, and non-verbal. The middle-class child, on the other hand, is more often conceptual, abstract-symbolic, ‘idea-oriented’, and verbal in his style of expression” (p. 41). To be fair, however, this was common discourse among socially progressive social scientists of the time, and it is easy to be critical from perspective of almost a half century of social evolution.

Miriam's analysis of the expectations of poor families for the futures of their children and of the way they socialize children for a world of limited opportunities anticipates Ogbu's ideas about race and caste (e.g., 1985). The idea common to both scholars is that poor and minority families know that the odds are stacked against their children, so they socialize them to occupy the lowest rungs of the social hierarchy. This, Ogbu argues, is not a “failure of socialization” but realistic socialization, and Miriam's thoughts in this respect are similar. Miriam also describes a phenomenon similar to Fordham's “burden of acting white” (e.g., 1991), although she does not use that term.

Miriam ends her chapter with a section on “implications for school experimentation” (p. 54), that is, changes in educational practice that may foster greater academic achievement among poor and minority children. Her first recommendation is for preschool programs, an idea much in favor among educators at the time, given that Head Start was launched in 1965.[21] Interesting recommendations include more male teachers, especially in the early years; same-sex classes; postponing formal academic instruction in the primary grades in favor of “two or three years of preparation for learning” (p. 55); and the use of tangible rewards.

Clearly of its time, this chapter also represents one of a relatively few efforts to come to grips with a problem that haunts us still. It is somewhat depressing to realize that what we today characterize as the “achievement gap” has been recognized as a serious problem among mainstream educators and psychologists for many decades; that many prescriptions, such as Miriam's, have been offered; and that we still seem to be where we were when Miriam wrote this chapter nearly a half century ago.

Adapting teacher style to pupil differences: Teachers for disadvantaged children. Miriam's goal in this brief chapter is to describe the characteristics

of “culturally disadvantaged” students as a distinct subpopulation within the public schools and to delineate the characteristics of teachers who would be capable of working successfully with such students.

The most impressive part of the chapter is her “hypothetical model of the teacher of disadvantaged pupils” (p. 472). What is notable here is how little this portrait of an effective educator draws upon the well-meaning but problematic deficit model that informed so much thinking about economically disadvantaged students at the time. For example, she writes that rather than viewing these students as “hopeless, too dumb to learn” (p. 472) or feeling sorry for them, the successful teacher sees his students, “like all children, coping in their own way with the trials and frustrations of growing up” (p. 472).

Her view of nonstandard English is quite atypical for her time. She writes that the students' language “is closely tied to the life they lead” and that an effective teacher “recognizes its functional qualities for the pupils” (p. 473). Such a teacher, she also writes, “realizes that many intellectual abilities, like some of those that enter into creative functioning, are not measured by intelligence tests” (p. 473) and that such tests should be rejected as measures of “native intelligence” (p. 473).

In these two chapters, Miriam shows how a concern for social justice can be effectively wedded to serious scholarship. Although her chapters do not address gifted education directly, today we are quite aware that issues of giftedness, privilege, and disadvantage intersect in a manner that produces enduring, sometimes seemingly intractable, challenges. Reading Miriam's chapters through the lens of gifted education is a useful undertaking that can inform our current thinking about these issues.

Conclusion

Reading the selection of Miriam's work described here was rewarding and, in some ways, revelatory. I came away with a renewed appreciation of her as a highly capable and rigorous scholar. I also gained greater insight into a critical period in the history of our field, the decade following the launching of Sputnik.

I cannot, in all honesty, claim for Miriam a place among the very greatest scholars in the history of the field of gifted education. She is not responsible for a landmark accomplishment; the mention of her name evokes no

association with a signal achievement the way, say, mention of Terman's, Hollingworth's or Renzulli's does. In fact, I suspect that for most readers of this book, hers is the least familiar name among those in the table of contents. Perhaps the collaborative nature of her work with the Talented Youth Project serves to obscure her contribution to the field.

That is unfortunate, because she and her memory deserve better. Miriam was a scholar of the first rank, the kind of serious intellectual who brings credit to her field of study. I am grateful for the opportunity to contribute a chapter about Miriam's life and work and, perhaps, to introduce her to readers to whom she had heretofore been unknown. I urge my colleagues, if they have not already done so, to seek out Miriam's work for themselves. The time they spend with her will be richly rewarding.

Notes

1. I want to thank Jennifer Govan, Assistant Director of the Gottesman Libraries at Teachers College, Columbia University, for her invaluable assistance.
2. Tannenbaum, of course, is still an active contributor to the field.
3. In some publications, Miriam used her middle initial, and in some, such as this one, she did not.
4. It is interesting that, throughout the work of the Talented Youth Project, the terms *talents* and *talented* are used whereas the terms *gifts* and *gifted* are shunned. The reason given is that "*talent* was preferred because educational usage has limited the connotation of *gifted* to high intellectual endowment" (p. 6).
5. The authors are much less prone to problematize IQ tests as valid measures of intelligence than many are today.
6. Although these publications are modestly described on their covers as pamphlets, I think that word has connotations today that undercut the scholarly heft of these works. I use the term *monograph* instead, perhaps slightly mangling the meaning of that term.
7. This monograph and her two chapters in *Education of the Disadvantaged* are the only non-collaborative works discussed here.
8. Lyndon Baines Johnson, President of the United States, 1963–1969.
9. Reinforcing the antique quality of this publication is a listing of other Horace Mann-Lincoln Institute publications on the first page of the monograph. The first work listed is *8mm Sound Film and Education* (Forsdale, 1961), and the last is *Wireless Observation* (Herbert & Swayze, 1964).
10. Reflecting the times, Miriam also reports a lower incidence of such "problems" as homosexuality among the Terman subjects. It was not until the seventh printing of the DSM-II in 1974 that the American Psychiatric Association removed homosexuality from its catalog of mental disorders (Spitzer, 1981).
11. The publication of Guilford's magnum opus , The Nature of Human Intelligence (1967) was a couple of years in the future.
12. The notion of referring to low-SES and minority populations as "culturally disadvantaged" and "culturally deprived" had not yet been widely challenged.

13. The name *Otis* resonates throughout the history of gifted education. A student of Terman's at Stanford, Arthur Otis developed the Army Alpha and Army Beta tests for the U.S. Army in World War I. He then adapted the former into a widely used group IQ test, which figures prominently in the study reported here. Its successor, the Otis-Lennon School Ability Test is, alas, now being used as one of two standardized measures on whose results hinge all decisions as to whether or not to admit young students to gifted education programs in the New York City schools.
14. At the end of grade six, 2,219 of the original subjects remained in the study.
15. Of 49 principals approached, only 4 refused to participate.
16. Chapter Eight, "Summary and Conclusions," is a useful digest of the results, although it might be a bit confusing without the context provided by the preceding chapters.
17. Biographical information about Jane Raph comes from *Judy Duchan's History of Speech-Language Pathology* (http://www.acsu.buffalo.edu/~duchan/history_subpages/janebeasley.html).
18. Throughout, Raph, Goldberg, and Passow operationalize underachievement as a discrepancy between IQ and course grades, although they deftly problematize this formulation in their first chapter.
19. The middle initial, found on the title page of the 1966 book, has again disappeared (although it reappears in each of the chapters Miriam contributed to this volume).
20. Although she notes that middle-class "Negroes," unlike Whites, are denied access to suburbs because of their race and remain in the city. This has changed in the roughly 50 years since Miriam wrote the chapter, which was first published in 1963. Today, so-called "Black fl ight" to the suburbs has become much more common.
21. Since this chapter was first published in 1963, Miriam seems to have anticipated Head Start.

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17

A. HARRY PASSOW

Curriculum, Advocacy, and Diplomacy for Talent Development (1920–1996)

Ann Robinson, Bronwyn MacFarlane, and Debbie Dailey

Sputnik went up on October 4, 1957. By that time, A. Harry Passow had already been at work on the Talented Youth Project (TYP) for three years (Passow, ca. 1991). Established in February 1954 by Harry, the TYP provided the framework for a series of important school studies about bright youth before the space race exploded into a frantic allocation of resources to develop America's talent. Under the umbrella of the Horace Mann-Lincoln Institute of School Experimentation at Teachers College, the TYP fostered a key collaboration among three individuals in the history and development of the field of gifted education—A. Harry Passow, Miriam L. Goldberg, and Harry's young research assistant, Abraham J. Tannenbaum.

In a 1991 interview and in his autobiography, *It's All Been Interesting and Unexpected*, Harry recounted that he was drawn to the study of talented youth by his experience with a student in one of his Eden Central School classes during the late 1940s (Passow, ca. 1991). The student, William Renegal, whose name Harry recalled 44 years later in the interview, was a Westinghouse talent finalist (ca. 1947–1948) with a project on rare earth metals. Harry reflected that William was such a handful that he was invited to carry out independent projects in the stock room rather than the classroom (Kirschenbaum, 1998). Two other key events influenced Harry's entry into the field of gifted education. A committed supporter of the comprehensive high school, Harry was struck by the round of attacks on

schools that appeared in the 1950s in books like Arthur Bestor's *Educational Wastelands*. In the heady intellectual soup of Teachers College, he witnessed first-hand the concern of Harvard's James Conant about academically talented youth in conversations with Teachers College faculty. Finally, Harry was guided by one of his mentors, Dean Hollis Caswell of Teachers College, who suggested that he strike out into his own area of study within the Horace Mann-Lincoln Institute. According to Harry's autobiography, Caswell knew that in order for Harry to develop his own research program and a collection of first authorship publications, he needed to carve out a scholarly niche of his own (Passow, ca. 1991).

In 1954, Harry established and from that year to 1965 (Kirschenbaum, 1998; Passow, 1980, p. vii–xviii) directed the TYP which set forth its aims in *Planning for Talented Youth* (Passow, Goldberg, Tannenbaum, & French, 1955) and produced studies on ability grouping (Goldberg & Passow, 1962), underachievement (Passow & Goldberg, 1958), enrichment mathematics in the junior high school (Passow, Goldberg, & Link, 1961), and peer attitudes toward academically gifted students (Tannenbaum, 1960) among others.

That Harry considered the TYP one of his major contributions is confirmed by his inclusion of the purposes of the project in his 1986 congressional testimony on behalf of H. R. 3263, The Gifted and Talented Children and Youth Act, which was a building block in efforts to pass federal legislation. In his testimony, Harry stated the origin and purpose of the TYP.

> In 1954, I initiated and for the next twelve years directed the Talented Youth Project of the Horace Mann-Lincoln Institute of School Experimentation at Teachers College, Columbia University. The purpose of the Talented Youth Project was to conduct research and to assist public school systems develop programs aimed at identifying and nurturing gifted and talented children and youth. We initiated the Talented Youth Project because we believed that America was short-changing its gifted children and youth and, in doing so, was short-changing itself as a nation. (*Gifted & Talented Children*, 1986, p. 38)

Thus, Harry's entry into the field of gifted education was likely to have been influenced by his own teaching experiences with a talented student,

the guidance of a lifelong mentor from his first higher education job at Teachers College, and, in Teachers College, the availability of an endowed research institute with a perspective that encouraged independently developed research programs in collaboration with schools. In Harry's case, the research program involved a collaborative group of scholars who produced a fleet of studies based on their work with the TYP.

A. Harry Passow: Schooling, Military Service, and Family

In 1920, the arc of Harry's life began in the Eastern Seaboard of the United States, where he was born in Liberty, New York, to Morris Boris Baruch Passow and Ida Weiner. An eager student, he participated in many extracurricular school activities while in school including drama, debate, journalism, band, and orchestra (Passow, ca. 1991). He was recognized as the 1938 Liberty High School Class Valedictorian and was encouraged to pursue a university education. Although, Harry admitted that college did not seem like a possibility until his teachers guided him in that direction (Passow, ca. 1991). He earned his bachelor's degree from New York State College for Teachers in Albany (now SUNY-Albany) in 1942. Also in 1942, he entered the U.S. Army Air Force Communications Program and married his college sweetheart, Shirley Siegel, whose varied professional interests ultimately resulted in her law degree from Rutgers. The Passows had three children: Michael, Deborah, and Ruth, who were born during and shortly after the World War II years. Called to active duty by the Army and commissioned as second lieutenant in 1943, Harry served as the communications security officer in the Marshall Islands in the Pacific theater of operations. After serving his commitment to the United States Army Air Corps, Harry entered a graduate school program for veterans at Albany and earned a master's degree in educational administration and guidance (Kappa Delta Pi, n.d.; Passow, n.d., University of Albany Veteran's Project).

In 1948 after his military service, Harry returned to become a teacher and began supervising student teachers in mathematics at Albany while simultaneously earning a second master's degree in education at Teachers College. He swiftly earned his doctorate from Teachers College, Columbia University in 1951. In 1952, he became a Research Associate with the Horace Mann-Lincoln Institute and joined the faculty of Teachers College,

ultimately chaired the Department of Curriculum and Teaching from 1968 to 1977, and was appointed the Jacob H. Schiff Professor of Education at Teachers College, Columbia University in 1972. He was also the director of the Division of Educational Institutes and Programs at Teachers College from 1975 to 1980 (Passow, ca. 1982).

International Networks, Collaborations, and Advocacy

In addition to his professional life at Teachers College and his ties to New York City and Albany, Harry had many international interests and held several appointments mainly in Europe and Israel. In the early years of TYP, Harry was granted a sabbatical and after several changes in his initial plans headed to the United Kingdom with a Kappa Delta Pi Fellowship in International Education in hand to study England's school provisions for gifted students. He pronounced 1958–1959 “a wonderful year” (Passow, ca. 1991) and enthused that he “visited some 55 schools, colleges and universities and observed my three children's schooling in a British primary and infant school firsthand” (Passow, ca. 1991). Harry's U.K. experience must have left him with a taste for travel and overseas visiting academic activities. Ten years later during 1967–1968, he was a Visiting Professor and Senior Fulbright Lecturer at Stockholm University at the invitation of Professor Torsten Husen. Harry also had two opportunities for research and scholarly activity in the Middle East. He was a Senior Researcher at Hadassa-Wizo-Canada Research Institute in Jerusalem, and a decade later he was appointed as a Visiting Professor at Tel-Aviv and Bar-Ilan Universities, where he advised on the development of a school for gifted secondary students (Zumwalt, 1996).

Although he had many international projects and made many international trips over the years, one of his most important overseas conference appearances for the field of gifted education took him back to the United Kingdom in 1975. He was invited to present at the First World Conference on Gifted and Talented Children in London. Out of that event, the precursor of the World Council on Gifted and Talented Children (WCG/TC) emerged (World Council on Gifted and Talented Children, n.d.). As the group searched for its identity over the next few years, Harry was asked in 1979 to establish a Secretariat for WCG/TC, secure a presence at Teachers College, and serve as its Honorary Director (WCG/GT). With his

friend, Dr. Milton Gold of Hunter College stepping up to take on the duties of the Executive Secretary, Harry's efforts helped to stabilize the World Council, and he was later elected president in 1985 at the Sixth World Conference in Hamburg, Germany. His international activities, network of friends and acquaintances, and scholarly contributions to international educational issues must have enriched his life as well as forging international connections and collaborations for the field of gifted education. Among the many tangible products of his international work in gifted education was the appearance of the *International Handbook of Research and Development of Giftedness and Talent* edited by Kurt Heller of Germany, Franz Mönks of the Netherlands, and Harry Passow of the United States; the massive handbook was one of his later career contributions. Over the course of his career, Harry wrote or edited 31 books, monographs, and pamphlets and published more than 225 journal articles and book chapters. He died at the age of 75 in 1996 (Stout, 1996). In addition to the many published tributes and obituaries, a special issue of the Gifted Child Quarterly is dedicated to Harry and was developed in honor of his work (Robinson, 1998).

Getting in to Gifted Education and Staying the Course

Harry Passow began his interest in talented youth early and continued that interest over the course of a professional and personal lifetime. Two of his earliest publications were calls to action, particularly targeted at school administrators. In 1954, the year Harry established TYP, he co-authored an article with Abraham Tannenbaum, “What of the Talented in Today's High Schools.” Appearing in *Educational Leadership*, the two Teachers College scholars put forth an argument for “more widespread discovery and development of talent” (Passow & Tannenbaum, 1954, p. 148), based on what they called *incentives*. Passow and Tannenbaum suggested that efforts to provide opportunity for all youth “left serious gaps in provisions for those with special potential” (Passow & Tannenbaum, 1954, p. 148) and also represented “a loss in manpower and leadership which we cannot afford in these critical times” (Passow & Tannenbaum, 1954, p. 148).

The article is illustrated with photographs of small groups of adolescents busy at various types of learning activities—none take place in the traditional classroom of desks with a teacher chalk-in-hand delivering direct

instruction to students. One photograph of a boy and a girl engaged in art is captioned, “Designing a curriculum to develop talent is a continuous challenge” (Passow & Tannenbaum, 1954, p. 149). The first bolded heading in the article is, *Broadened Conception of Talent*, in which Passow and Tannenbaum linked conceptualizations of gifted-ness with “an expanding view of the curriculum” (Passow & Tannenbaum, 1954, p. 150) and subsequently endorsed Paul Witty's suggestion that consistently remarkable performance “in any potentially valuable line of human ability” (Witty as quoted in Passow & Tannenbaum, 1954, p. 150) be the cornerstone of a broadened definition of giftedness.

The juxtaposition of Passow and Tannenbaum's concern for society's loss of leadership through the neglect of talent and Witty's concern that all positively productive talent domains be considered in a broadened definition emphasizes that Passow was an early proponent of comprehensive and socially driven talent development in the schools. The article ends with six specific recommendations for school faculties to consider so that talented youth do not “escape into mediocrity” (Passow & Tannenbaum, 1954, p. 154). The two authors suggest that high school faculties explore the nature of talent, understand how general school objectives should be applied to talented youth, analyze administrative procedures to make certain that schools are making best use of them to develop talent, consider total school efforts rather than fragmented provisions, increase their sensitivity to school, social and community issues, and “recognize the enormity of planning for every conceivable talent” (Passow & Tannenbaum, 1954, p. 155). Their list would resonate with advocates for the gifted collaborating with school administrators today.

A year later, the message gained traction when Harry's article, “Are We Shortchanging the Gifted?” appeared in a widely circulated publication, *School Executive*. He acknowledges the importance of this article to his work and it appears as an achievement of note in the memoirs and remembrances of him written by others (Passow, ca. 1991; Zumwalt, 1996). Again, demonstrating his commitment to the comprehensive public school, he asked, “The leading question remains, how can we best cultivate giftedness within the structure of education for everyone?” (Passow, 1955, p. 28).

Five years after his early articles appeared, Harry supplied background papers on the issue of talented youth to the participants in the 1960 White

House Conference on Children convened by President Dwight D. Eisenhower (Passow, 1960, 1961, ca. 1982). These were later published as *Educating the Gifted* (Passow, 1961). As Hollis Caswell commented, Harry would grow into Caswell's prediction, “In five years, anyone interested in the education of talented youth would look to Harry Passow at Teachers College as a first source” (Passow, ca. 1991, para. 14).

In 1980, he provided the first in a series, “Perspective through Retrospective for the National/State Leadership Training Institute on the Gifted and Talented.” The volume, *Education for Gifted Children and Youth: An Old Issue—A New Challenge*, included nine papers with an introduction that set his work in context, focused on the TYP, alluded to key publications from the 1950s and the 1960s in the field, and provided historical details on works by Paul Witty (1951), Havighurst, Stivers, and DeHaan (1955), and his own *Planning for Talented Youth* (Passow, Tannenbaum, Goldberg, & French, 1955), which he modestly referred to as a *pamphlet*.

In the 1980s and 1990s, Harry continued to produce a steady stream of writing about gifted education; he had a unique talent of looking to the past for lessons learned but seeing the future of the field clearly. His last published work in gifted education was co-authored with Dr. Mary Frasier on new directions in the identification of culturally diverse gifted youth (Frasier & Passow, 1994, 1996). Thus, his scholarly publishing career in gifted education spanned nearly half a century.

A Commitment to Urban Education

In the same year as the initiation of the Talented Youth Project, the U.S. Supreme Court handed down its May 17, 1954, decision on *Brown v. Board of Education*, which declared separate but equal school facilities unconstitutional. Over the course of his career, Harry repeatedly devoted energy to the issues of poor children in urban environments. In 1962, he convened a Conference on Curriculum and Teaching in Depressed Urban Areas that culminated in an edited publication, *Education in Depressed Areas* (Passow, 1963b).

The dust jacket of this early publication is a stark picture of an urban neighborhood in decay. The artist has used crumbling brick walls as a backdrop to the outline of a child gazing at a sign that says, “STOP.”

Elsewhere in the cover design, a filigree iron fence is hung with a "POST NO BILLS" sign, an overflowing garbage can is tucked behind an ornate handrail attached to steps leading to an older building, and a winsome line drawing of an adolescent gazes pensively into the distance beyond the frame of the artwork—it is as if she is looking for her future (Passow, 1963a).

Fifteen authors contributed chapters to *Education in Depressed Areas*, including Robert J. Havighurst, David P. Ausubel (whose 1950 doctoral dissertation from Teachers College was titled, *Prestige Motivation of Gifted Children*), and Miriam Goldberg among others. Harry wrote the concluding chapter for the book, but his effort on behalf of children who faced the challenges of racism and poverty was far from over.

In 1966, he agreed to study the complete system of the Washington, DC, schools. His organizational skills brought together 80 faculty and 136 graduate students from Teachers College to conduct the 18-month project and provide a final report, *Toward Creating a Model Urban School System* (Zumwalt, 1996, obituary, A. Harry Passow Collection). His diplomacy and pragmatism is reflected in letters to Dr. Euphemia L. Haynes, the first woman to chair the Washington, DC, School Board of Education (State University of New York at Buffalo, 2001), as he explained the delicate balance between giving the school officials timely, interim information from the study to make informed decisions and the dangers of premature conclusions from the study team being translated into policies by the Board (Passow, 1966, Passow to E. L. Haynes, November 11–December 2, 1966). The report caused quite a stir, warranted a press conference, and became known as the "Passow Report" (Avorn, 1967; Zumwalt, 1996, para. 6).

In the archives of the Gottesman Library at Teachers College, a photo of Harry discussing the report at a news conference shows him in profile, table microphones clustered in from of him, and an enlarged wall map of Washington, DC, behind him. The urban neighborhoods, the river, and East Potomac Park are just visible as part of the backdrop (Passow, 1967b). The project, informed by Havighurst's study of the Chicago Public Schools, weekly took Harry to Washington, DC, from New York (Passow, ca. 1991). The recommendations included establishing preschools as part of the school system policy, abolishing tracking, and attending to the racial balance of students and faculty in schools among others (Passow, 1967a). Harry well understood the difficulty large, urban school districts had in creating

change; he openly stated the recommendations in the report were accepted but never implemented (Passow, ca. 1991).

Curriculum Theory, Curriculum Principles, and Differentiation

Harry Passow is strongly associated with curriculum in the field of gifted education. His work was extensive in this area and in some instances, iconic. As has been previously discussed, Harry was a proponent of the comprehensive high school and of comprehensive programming for talented students. Much of his work with the TYP concerned studies in curriculum, instruction, and administrative arrangements for students that in turn impacted curriculum and instruction.

Harry thought big about curriculum. He wrote about four aspects of curriculum which indicated that he understood the complexity of not only general and specialized curriculum design and implementation but also the hidden and covert dimensions of curriculum that generated subtle messages for students about expectations and a curriculum outside the school delivered through the media, cultural, and religious institutions (Passow, 1983).

In 1958, he contributed a chapter on enrichment to the *Fifty-seventh Yearbook of the National Society for the Study of Education*. The Yearbook included three sections: social factors; the gifted person; and the education of the gifted. Harry's chapter on enrichment appeared in the third section and focused on curriculum. He stated that while many curricular objectives were “desirable for all students, they are essential for the gifted if they are to achieve maximum self-realization and … implement their potential leadership” (Passow, 1958, p. 194). He went on to elaborate his thinking:

> Some of these goals can be attained more readily by the gifted, who can plunge deeper into learning, explore farther, and acquire more advanced concepts, meanings, and relationships than the average students. Some of the objectives can be realized faster or at an earlier developmental stage than with the average student. Having these experiences at earlier ages may result in qualitatively different learnings, in opportunities for more extended study, or in additional learnings. (Passow, 1958, pp. 194–195)

Although he was widely known as an expert on secondary education, in this chapter Harry indicated how thoroughly he understood the possibilities for curricular adaptation based on student characteristics and needs in the elementary setting.

By 1979, Harry had been appointed the editor of the next NSSE Yearbook focused on gifted education (Passow, 1979b). Scanning the section headings and chapter titles in the 1979 edition, his hand is evident. Section Two, "Educational Policies, Programs, and Practices for the Gifted and Talented," contains chapters and authors with experiences and opinions about programs and curricula for advanced learners. For example, Virgil Ward contributed a chapter on the North Carolina Governor's School, while Sandra Kaplan wrote about language arts and social studies curriculum, and Bruce Milne offered a discussion of career education for gifted students. Harry's summary chapter, "A Look Around and a Look Ahead," reached back into history to acknowledge the early curriculum and programmatic innovations in the 1860s, gave a happy nod to the Cleveland Major Work Program for its longevity, and ended with a positive note on the current state of advocacy for gifted students. At the dawn of the 1980s, nearly a decade after the appearance of the Marland Report, Harry saw the future in this way:

> The extent and nature of advocacy for education of the gifted and talented at the federal, state, and local levels involving various individuals and groups—parents, educators, legislators—differ radically from previous support. Advocates are much better organized, seem to be in better communication with one another, and are seeing the fruits of their efforts in federal and state legislation and appropriations. (Passow, 1979a, p. 454)

One of Harry's most delicate and diplomatic achievements was to take on the task of summarizing the majority options from a gathering of the Curriculum Council of the National/State Leadership Training Institute, which famously asked three key questions about the suitability of a curricular experience for differentiation. The questions have entered into curricular lore in gifted education as the *would, could, should* questions:

1. Would all children want to be involved in such learning experiences?

2. Could all children participate in such learning experiences?
3. Should all children be expected to succeed in such learning experiences?

The Curriculum Council through Harry's summarizing pen suggested that a *no* response to any of the three questions indicates that the curricular experience may not be appropriate for all students but might be appropriate for some. In other words, the curricular experience could be differentiated for talented learners (Curriculum Council, 1982).

His productivity in curriculum publications focused on talented learners continued. In 1986, in collaboration with Joyce VanTassel-Baska, Harry was a guest editor for a special issue on curriculum for the *Gifted Child Quarterly*. The manuscripts in that volume included Harry's contribution on secondary curriculum, curricular models, attention to several content curricula, and issues of scope and sequence (VanTassel-Baska & Passow, 1986). As was characteristic of his curriculum thinking in the field of gifted education, Harry's influence was evident. The issue included elementary and secondary perspectives, topics that touched on in-school and out-of-school curricula experiences, and inclusively featured established authors and early career scholars.

Themes and Legacies

Two foci of Harry's scholarly work and school programmatic efforts were the talented learner, especially in the secondary school, and the commitment to the education of urban youth beset by poverty and prejudice; these themes were to appear and reappear across the extensive body of his professional activities and achievements. Through TYP, and its research, and publications and through his work with conferences and publications on children and adolescents in poverty, Harry's twenty-first-century influence is tangible. He studied some of the foremost school issues of his day and ours.

An overarching theme in Harry's work was curriculum. He was acknowledged for his work in curriculum theory and curriculum planning in both general and gifted education. He explored the complexity of curriculum theory, development, and implementation and performed the delicate task of summarizing the majority opinions from a gathering of the

Curriculum Council of National/State Leadership Training Institute. The three key *could, should, would*, questions about the suitability of a curricular experience for differentiation continue to stand as benchmarks even today.

Along the way, he both studied and provided leadership in the armed services, in the schools, in higher education, and through multiple professional associations. For example, he served on multiple professional association boards, including the World Council, the National Association for Gifted Children (NAGC), and the Association for Supervision and Curriculum Development (ASCD). In addition, he was the Associate Director of the Graduate Leadership in Education Program (GLEP), a project funded by the U.S. Department of Education and designed to support a new generation of leaders in gifted education (Passow, ca. 1991). Harry offered guidance to students and colleagues from across the world. His students, friends, and colleagues frequently recounted his penchant for ending a class lecture or discussion, a scholarly presentation, or a hallway conversation with the tough question of, "So what?" His question could be sharp and uncomfortable to the discussants in the room, but his pragmatism was a trademark of Harry's tough thinking. In reflecting on his life and work, in listening to his commentary and in reading his work, it is not difficult to answer that Harry's own contributions are not found wanting under a high-powered lens of the scholarly microscope and the *so what* question.

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18

VIRGIL S. WARD

An Axiomatic Approach to Work and Life (1916–2003)

Suzanna E. Henshon

Virgil S. Ward's theory of differentiation has received a great deal of attention since it was published in his ground-breaking text, *Educating the Gifted: An Axiomatic Approach*, in 1961. Differentiation is a well-known concept in the field of education; it is the subject of countless articles, books, and empirical research. There are hundreds of titles in print with the word “differentiation” in their headings, yet Ward's influential text is out-of-print and difficult to find.

Ward had a challenging task at hand when he entered the field of education more than 60 years ago. He helped to shape the field of gifted education while also being a father, leader, and great scholar. Simply put, Virgil Ward led a remarkable life. By the time Ward died in 2003, his work had impacted thousands of gifted learners around the world.

Ward's Papers

While I never had the privilege of meeting Virgil Ward, I was fortunate enough to meet his daughter, Rebecca Ward, and several of his colleagues. I visited the home that houses Ward's papers, a collection that included personal papers, articles, and Ward's dissertation in which he first articulated the concept of differentiation.

To sift through Virgil Ward's papers is to catch a glimpse of a brilliant scholar, a man constantly searching for knowledge about human nature

across a myriad of fields. Flipping through a notebook that contained bibliographies, lists of books across disciplines, and details about Ward's life, I was struck by the complexity of his thought processes, by the depth and breadth of his reading and by his diverse interests. With painstaking detail, Ward compiled lists of academic classics across a broad intellectual terrain. His writings are heavily influenced by his extensive study of philosophy, psychology, sociology, anthropology, and general education.

Reading through Ward's files is comparable to getting a historical bird's-eye-view of gifted education. There are conference presentations, papers in draft form, correspondence to students who later became eminent scholars, and tributes from colleagues. Ward was at the center of a storm of ideas, a scholar who not only helped to shape the field of gifted education but also mentored future leaders and scholars. Ward was intense about his work but equally passionate in his support of talented graduate students who later became colleagues and in some cases lifelong friends. He lived and breathed intellectual life from the first day he stepped on the Duke University campus as a young graduate student until he became a Professor Emeritus at the University of Virginia.

Virgil Ward is best known for his work on differentiation. In 1952, Ward first presented the idea of *differentiation* in his doctoral dissertation, *Principles of Education for the Intellectually Superior Individual*, which he completed at the University of North Carolina. Nine years later, Ward published his classic text, *Educating the Gifted: An Axiomatic Approach* (1961), in which he defined differentiation for a public audience. Since the publication of this book, differentiation has continued to be a major concept in gifted education.

Life and Career

Reading through Ward's papers and trying to piece together his life story is a challenging task. That his mind was steeped in great ideas and integrally connected to innovative figures of his era is evident. One cannot find the thinker solely in the letters, in the corrections he made to a manuscript, or even in the academic papers he wrote, but one does get a feeling from his handwriting a sense of how he presented himself to the world. Sifting through countless documents, a pattern emerges of his professional activity

and train of thought, including the transition of differentiation from theory to practice.

Virgil Scott Ward was born on March 19, 1916, in Union, South Carolina to John Lewis and Beatrice Eubanks Ward. After the early death of his mother, he was raised by his beloved grandmother, Virginia Scott and aunt and uncle, Bonnie and Milan Petty. He married Alyne McNeill in 1941, and they had three children, Patricia, Rebecca, and William.

Ward studied English literature at Wofford College and graduated in 1939. In 1947, Ward earned his master's degree in educational psychology from Duke University. In 1952, he completed his Ph.D. at the University of North Carolina, majoring in educational psychology and minoring in general psychology. While serving in the European theater during World War II, Ward studied German through the Army Specialized Training Program and French language and literature at the Sorbonne. As an academic, his major professional interests were differential education for the gifted, human development and general education theory, educational program analysis, development, and evaluation.

At the invitation of North Carolina Governor Terry Sanford, Ward was the original project director for the North Carolina Governor's School in 1963. Ward helped differentiation move from a theory to a real practice, as he designed the theoretical structure and curricular framework of the original Governor's School. This Governor's School would later serve as a model for Governor's Schools across the nation.

Virgil Ward received countless awards including the lifetime membership from The Virginia Association for the Education of the Gifted, the Distinguished Scholar Award from the National Association for Gifted Children, and membership in the National Social Science Honor Society, Pi Gamma Mu. He served as president of the South Carolina Mental Health Association, the National Association for the Gifted, and the Southern Association among others. He was a professor at Wofford College from 1947 to 1951 and chairman of the Department of Education and Psychology from 1951 to 1956. During his tenure at the University of Virginia (1956–1986), he was professor and chairman of the Departmental Committee for Educational Psychology and chairman for the Departmental Committee for Educational Foundations. After retiring from UVA in 1986, Ward became the director of the Virginia Center for Educational Development in Charlottesville, Virginia. In 1990, an endowed chair in the Curry School of

Education at UVA was established in his name to honor his 30 years of service to the university and his lifelong commitment to differential education for the gifted.

In addition, his career included diverse experiences such as teaching English at a public school in South Carolina, serving in the U.S. Army Air Force, and working as a Visiting Instructor at Johns Hopkins University; University of California, Los Angeles; and Tulane University. On February 16, 2003, Virgil Ward died in Charlottesville, Virginia, just a few miles from the university where he spent the majority of his career.

Choosing the Work

I was able to examine both published and unpublished texts by Ward dating from 1952 to 2003. Over the course of 50 years, Ward developed and advanced the concept of differentiation, watched this concept become practice, and later examined the lifespan development of gifted individuals. Choosing the publications to emphasize was a complex task, but my focus turned to two specific texts—*Educating the Gifted: An Axiomatic Approach* (1961) and *Differential Education for the Gifted* (1980). These books best represent ideas that Ward developed over his lifetime. Also examined was his work in establishing and developing Governor's Schools in North Carolina and his service on the Knowledge Production and Utilization Committee for the Association for the Gifted (CEC-TAG). His final work on lifespan development was not completed before his death.

Educating the Gifted: An Axiomatic Approach

Educating the Gifted: An Axiomatic Approach contains 220 pages of text, exclusive of references. By the time Ward wrote this book, gifted education was a field-in-motion. Published four years after the launch of Sputnik and eight years before a man landed on the moon, this book contains 189 references representing the breadth and depth of Ward's knowledge and academic interests. Leta Holling-worth, John Dewey, Catharine Cox, J. P. Guilford, Miriam Goldberg, James Gallagher, Lewis Terman, and William Hutchins are referenced in the bibliography. However, it is within the text itself that he demonstrates his understanding of a myriad of disciplines.

Educating the Gifted established Ward as an expert in the field of gifted education. While Ward developed the idea of differentiation in his dissertation, it is here that he presents a refined version to a broader audience. According to Ward, this work "develops a systematic theory of differential educational experience for the gifted" (Ward, 1961, p. vii). Always a forward-thinker, Ward's intent was to prepare gifted students for "their anticipated adult roles" that would "involve leadership and reconstruction at the frontiers of culture, as distinct from mere participation in the status quo" (Ward, 1961, p. vii). Ward sought to guide the "general education of persons of superior intellectual ability rather than to the specific training of particular aptitudes manifest in gifted people" (Ward, 1961, p. vii) and envisioned that an educational system for gifted learners should focus on their future academic, scientific, intellectual, and social accomplishments.

This text is divided into four sections. In Part One, Ward describes the superior student in an educational perspective. In Part Two, he defines the general principles of the educational design. Part Three outlines the principles of intellectual and academic development. The final section outlines the principles of personal, social, and character development (Ward, 1961). This book presents a barometer for the field of gifted education during the early 1960s. Like many scholars, Ward defined the gifted as superior students with IQs ranging in the top 1–3%. He was not merely concerned with their educational programming but with what happened after they left school. Ward prepared students for "socially significant achievements" across diverse academic fields (Ward, 1961, p. 20).

What is particularly striking is the level of detail in Ward's thinking throughout the text. He was able to contemplate great ideas while considering their implementation at a practical level, moving theory to practice. This is evident when he states,

> The excellent conservatory training of the talents (identified as best possible) of the musician differs from the excellence in the general education of the musically talented person. It is the wholeness of the talented engineer or architect for which the common school is most responsible. (Ward, 1961, p. 35)

He considers the possibility that boys and girls “who possess the intellectual abilities similar to those of men like Copernicus, Luther, and Jefferson” currently attend American schools (Ward, 1961, p. 42). Not only was Ward concerned with identifying gifted learners, but he was also keenly aware of the responsibility of society to prepare gifted individuals for “socially valuable enterprises” later in life (Ward, p. 47). It was essential that students learn more than factual information, since knowledge itself is an instable entity and that students learn “thought processes such as judgment, inference, and reasoning” (Ward, p. 59).

Ward also provides a critique of gifted education in the early 1960s, which included regrouping or acceleration and advanced placement provisions (Ward, 1961). In presenting an argument for differentiation, Ward encouraged gifted educators to re-examine “the entire realm of man's knowledge with respect to what new subject matter, and what new modes of handling traditional subject matter, would be possible for the powerful and subtle minds of highly intellectual youngsters” (Ward, p. 79). Thus, intellectually superior people needed a “distinctly devised sequence of educational experiences that takes account of the superior characteristics” (Ward, p. 80). Ultimately these individuals will be able to make “independent and valid judgments in intellectual and academic issues [and] gain independence from the opinions of others and become able to do [their] own intellectual searching” (Ward, p. 95). To a gifted learner, “the idea is the central factor and the crucial point in his instruction” (Ward, p. 106). Despite being published 50 years ago, the text remains relevant, and its central tenets and practices are reflected by contemporary scholars and practitioners.

The Governor's School of North Carolina

Ward's efforts to provide a differentiated education for gifted learners culminated in the establishment of the Governor's School in North Carolina in 1963. With the influence of his position at the University of Virginia and his scholarship in gifted education, Ward was in a unique position to impact special education at a practical level. The school emphasized aptitude development, general educational development, self-insight, and personal development. This eight-week residential summer program was supported by the Carnegie Corporation in New York and provided an educational

opportunity to 400 boys and girls who studied at Salem College in Winston-Salem, North Carolina (Ward, 1962).

The curriculum of the Governor's School supplemented the offerings of local schools while providing extraordinary educational experiences for highly gifted secondary students from across North Carolina. During the inaugural program, students were offered courses in the humanities, mathematics, social sciences, natural sciences, dance, drama, music (instrumental and vocal), and painting (Ward, 1979).

The North Carolina Governor's School provided gifted students with the opportunity to study with other students of their age and academic peers. Students also had the occasion to take classes not usually offered in traditional schools at that time such as creative writing and statistics. Ward was able to witness differentiation in action and provide other states with a model to establish their own Governor's Schools (Ward, 1979).

Differential Education for the Gifted

Nearly 20 years after publishing his canonical text, *Educating the Gifted: An Axiomatic Approach*, Ward revised his earlier text into a new volume, *Differential Education for the Gifted*. This book is more than a typical revision; it is justifiably published under a different title because this second effort required 20 years of reflection and revision. The author had three central goals:

1. To link the original text, now some twenty-five years since inception, with the terminology found in current literature and thought.
2. To introduce some discipline to the field's highly ambiguous and diverse contemporary nomenclature.
3. To plead for responsible scholarship capable of conducting critical analysis in gifted child education. (Ward, 1980, p. xxx)

The interceding decades had brought gifted education to the forefront of both the political and public consciousness. Instrumental were the Marland Report (1972), in which U.S. Commissioner of Education Sidney P. Marland Jr. made “a strong statement of advocacy for increased recognition and support for gifted and talented youth in American schools” (Marland,

1972, p. xv), and the establishment of the Office of Gifted and Talented, with Harold C. Lyon serving as its first director.

The text also included "Current Thought: Fifty Contemporary Concepts in Differential Education for the Gifted," developed by Hans G. Jellen and W. Brent White. Jellen and White analyzed the "recurrent constructs and nomenclature that have come to characterize the published literature and the language of conventions, workshops, and leadership training seminars in the past decade" (1980, p. xvi). According to Ward,

> They have defined these contemporary terms concisely for quick reference; keyed them to the text; briefly explained the affinity or relationship of the particular entity to the present body of theory underlying gifted education; and supplied additional readings through abbreviated and full identification in a summary biography. (1980, p. xvii)

Ward included a chronology of his scholarship and those of his colleagues and graduate students who had influenced his own work. Many of the concepts discussed, including ability, acceleration, creative problem solving, differentiation, identification, intelligence, leadership, learning style, and enrichment remain part of the current fabric of gifted education.

Lifetime Education: A Theory and System of General Education for Today and Tomorrow

Ward continued to be a productive researcher until his death in 2003. In his later years, Ward's focus transitioned to lifelong learning, and he wrote a prospectus that was reviewed by several publishers. Ward had planned to write this work in two volumes. In the first volume, he would write about lifelong learning in concept, principle, and design. The second volume would focus on systematic applications. In his introduction, Ward defined lifetime education as "a comprehensive theory and derivative system for the practice of General Education that is designed for strategic reformation" (Ward, 2000, p. 1). The book was divided into five separate chapters: "Contemporary Education in Historical Perspective," "Dissent and Affirmation: Potential for Educational Reform," "Epistemology of Lifetime Education: and the Family Study Center," "Architectonics of Lifetime

Education," and "Recapitulation: Toward the Third Millennium." The appendices were divided into three separate parts: Criteriology: Criteria (1–5) for Selection and Positioning of Prototype Volumes; Prototype Publications for the Model Bookshelf; and Virgil Ward: Biographical Sketch.

Reading through this prospectus, I came to a better appreciation of Ward's post-retirement activity, which included not only planning these volumes but working as an Independent Researcher at the Virginia Center for Educational Development, located just four blocks away from the University of Virginia and founded by Ward himself. He wanted to look forward to further intellectual activity.

Knowledge Production and Utilization Committee

During the late 1970s, Ward helped establish an important committee within The Association for the Gifted (CEC-TAG). The committee included Ward, Maurice Fisher, and Bruce Shore. Sponsoring a symposium at the CEC-TAG conference, the committee concerned itself with the state of knowledge in the field of gifted education. The committee helped to foster conversations about how to expand the definition of giftedness beyond the Marland Report and how to look at giftedness in new and complex ways that went beyond IQ scores. In 1979, Bruce Shore took over the responsibility of running this committee, and he invited Dewey G. Cornell and Ann Robinson to join him and Virgil Ward with a new committee mission (B.M. Shore, personal communication, March 9, 2013).

The KPU committee was another of Ward's important contributions to the field of gifted education because it again was an example of his desire to connect theory with action in schools. Eventually the committee produced an important book, *Recommended Practices in Gifted Education: A Critical Analysis* (1991), published by Teachers College Press of Columbia University. The committee's work later inspired *Best Practices in Gifted Education: An Evidence-Based Guide* (2006), which was written by Ann Robinson, Bruce Shore, and Donna Enersen and published by Prufrock Press; *Best Practices* focused on a subset of home, classroom, and school practices with research evidence to support them.

Ward's Work and Its Offspring

To gauge Ward's influence, one only has to enter *differentiation and education* into the Google search engine, which produces over 12 million results. These include books, articles, conference presentations, companies, and cottage industries devoted to some form of differentiation. It is important to note that many of these results are not faithful to Ward's original intent. Nevertheless, *differentiation* has become part of education's mainstream lexicon, moving far beyond the field of gifted education.

Educating the Gifted is a difficult book to read but a finely crafted tapestry of ideas all the same. When I reread the book, I was struck by Ward's ability to think across domains, by his intuitive sense for gifted individuals. This seminal text helped define what it meant to be gifted and laid the foundation for later curriculum researchers like Carol Tomlinson (2008) and Joyce VanTassel-Baska (1989). Many chapters contain a tension of ideas; Ward's writing takes readers into the heart of a gifted man who was deeply concerned with the needs and development of the gifted learner. Ward also served the field in a practical way by designing the theoretical structure and curricular framework for the Governor's Schools.

Virgil Ward as an Eminent Person

Like many eminent people, Ward's life has a public and personal persona. He was a witty man who loved to attend opera; he was also a quintessential researcher who spent long hours working on articles and conference presentations. He had rose-colored cheeks and a twinkle in his eye, but he could also be moody and feisty. As an early-blooming scholar, Ward was the epitome of excellence during his graduate studies; one of his earliest ideas, differentiation, impacted both general and gifted education.

Ward's work in differentiation has been foundational to the field of gifted education, but there has been very little attention paid to his life as a scholar. While Ward completed a vast body of work, he died before he had a chance to complete what might have been his finest tome, *Lifetime Education: A Theory and System of General Education for Today and Tomorrow*. Looking through this manuscript, I was struck by the depth of thinking that went into its development; it is the work of a matured scholar, the culmination of decades of reading and thinking.

When tracing the trajectory of Ward's career, it is evident that his dissertation was the launching point for his scholarship. Just nine years later, Ward established himself as a nationally recognized scholar with the publication of *Educating the Gifted: An Axiomatic Approach*. This book was not only the product of many years of thought and inquiry, but it was also just the beginning of Ward's career in gifted education. In examining his papers it is easy to see the impact Ward had as a scholar and friend to people from all walks of life; the letters and cards he received upon his retirement reflect this diversity—from Virginia Greever Plack, a teacher he studied with during his formative years, to Joseph Renzulli, a former graduate student of Ward's and an eminent scholar in his own right (private collection of Rebecca Ward; Ward, 1986).

After studying the papers of Virgil Ward, my understanding of eminence is redefined. My vision of eminence includes not only high levels of scholarship and achievement, but also learning and talent development across the entire lifespan. As a scholar, Virgil Ward and his work inspired students, teachers, and gifted educators around the world.

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19

RUTH MAY STRANG

Leading Advocacy for the Gifted (1895–1971)

Leonie Kronborg

> The main turning points in my career were many. My first full-time work grew out of two art courses in which I attracted the attention of the teacher by unusual color schemes and original designs. I went into interior decorating without exploring any other possibilities. The next job grew out of my previous preparation in home economics and the need for a home economics teacher in a slum area. Again, the job came to me, unsolicited and unsought. The next move involved a determined decision made in spite of opposition from the school principal, my family, and the teacher with whom I was working. This was the decision to resign a teaching position and study fulltime at Teachers College, Columbia.
>
> —(Strang, 1971, pp. 376–377)

From this beginning emerged Professor Ruth Strang's innovative contribution to education for the next four decades at Teachers College, Columbia University. Culminating in her academic focus on the needs of the gifted during her last 15 years, she initiated the first national advocacy association for gifted students, the American Association for Gifted Children (AAGC). When she arrived at Teachers College in the early 1920s, Ruth Strang was a determined, talented individual willing to take a calculated risk. She believed in her ability to achieve academically and was living ahead of her times as an independent woman!

Early Life

An early and avid reader, Ruth Strang's formal educational experience began in a first grade, one-room rural school in New Jersey. She changed

elementary schools four times, twice when the family moved to Phoenix, Arizona, for two winters, as her father suffered from bronchitis, and finally when she attended a public school in a residential area of Brooklyn, after her father sold the family farm.

While attending a private high school, Adelphi Academy in Brooklyn, Strang was inspired by her teachers and academically oriented friends to pursue her ambition of a college education. However, midway through her final year of high school, Strang discovered that if she were to further her studies in household science, she needed a year of physics to meet the admission requirements. Fortunately, her physics teacher set up special instructional sessions and extra class experiments for her to attend, ensuring that she passed the Regents Examination the following June (Strang, 1971). Ruth May Strang was on her way to college.

Impact of Gender

Despite begging her father to send her to Wellesley College, this choice was not seen as possible. Instead, Strang went to nearby Pratt Institute to do a two-year course in household science. On completion of her studies, Strang began work with an interior decorator, but found the work disappointing, so she stayed home to care for her ill mother before taking a job teaching home economics in the New York City Public Schools (Strang, 1971). Like other gifted adult females who have experienced discrimination (Kronborg, 2010), the opportunity for post-secondary education was seen as a male prerogative; it appears that Strang's father did not consider attending college appropriate for girls.

In her youth, Strang became conscious of the preference most people gave to males, and resented this differential treatment. The discrimination was evident within her own family, as her brother Ben, who graduated from Columbia in mathematics, had his tuition paid by their parents, taught for three years, and then returned to Teachers College to complete his master's degree before taking a high school mathematics position. Moreover, Strang's brother, who was given educational opportunities to fulfill his academic goals, opposed Strang's desire to move from teaching in a New York City school to further her studies at Teachers College, Columbia University. Despite this lack of support, she enrolled in a Bachelor of Science degree program, completing a major in nutrition in 1922, and a

Master of Arts degree in 1924. Determined, she began her Ph.D. studies and completed them in 1926. Unfortunately, during that same year her father died, and the following year her mother also passed away (Strang, 1971).

To continue her education, Strang was forced to work part-time to finance her studies. When she finally retired from Teachers College in 1960, her brother continued to press her to relinquish her professional life. As with other successful women of this era, the prevailing societal expectations were that women should prioritize family over academic achievement (Kronborg, 2010). Her brother never changed his attitude towards devaluing his sister's role as a professional woman. When he became ill, Strang continued her work-life rather than take on the role of a full-time caregiver. Nevertheless, Strang claimed she did experience "frequent conflict between the demands of human relations and of the work that I felt destined to do" (Strang, 1971, p. 367).

Finding Role Models and Mentors

During her adolescent years, three of Strang's female cousins influenced her life in positive ways, providing both mentorship and role-modeling. Another mentor who influenced Strang considerably during her studies for her bachelor's degree was a female professor, Mary Swartz Rose. Rose recognized Strang's abilities in her current major of nutrition and asked her to assist in the beginning course in the nutrition program. Rose also arranged for Ruth to take an advanced course in chemistry and a course in physiology at the Columbia Medical School. Acknowledging Strang's verbal abilities, Rose often asked her to summarize articles on nutrition at the New York Academy of Medicine Library (Strang, 1971). Strang's academic knowledge was greatly enhanced by Rose's mentorship. Other role models identified by Strang at Teachers College included Dr. E. L. Thorndike, an educational psychologist and Professor of Psychology, who is frequently credited with creating the field of educational psychology (Mayer, 2003). In 1921, Thorndike published, "Intelligence and Its Measurement," an area of study he had been investigating for a decade. He later focused his research more specifically on high abilities and conducted early studies of genius and bright children (Thorndike, 1938, 1941, 1943). Thorndike's line of research was also developed by Dr. Leta Hollingworth, the first woman to significantly influence the field of gifted education

(Teachers College, n.d.). Hollingworth was already Professor of Educational Psychology at Teachers College when Strang began her studies there. In her autobiographical sketch, Strang (1971) acknowledged both Hollingworth and Thorndike. They influenced Strang and impressed her with their integrity and kindness (Strang, 1971). Role models and mentors have been found to be important in eminent women's lives (Kerr, 1997; Kronborg, 2010); Ruth May Strang followed this pattern.

Academic and Career Opportunities

During her graduate study, Strang was offered several part-time positions. These positions financed her studies and also pulled her in various academic directions at Columbia. Her first position was as an assistant in nutrition. Subsequently, she was invited to move from nutrition into health education in the Department of Health Education. Then, she shifted to a research position where she taught introductory reading to deaf children. Strang was encouraged to work with Dr. Arthur Gates on the need for deaf children to acquire reading skills. Her work with Gates led to a two-year study preparing practical books of reading material for the teaching of deaf children and was to form the basis of her Ph.D., completed in 1926 (Strang, 1971).

After completing her doctoral studies, Strang was offered a one-year fellowship by Dean James Russel at Teachers College to build “the professional body of subject matter in the field” of student personnel administration (Strang, 1971, p. 377), a newly developing discipline. Strang's outstanding competencies were clearly evident to those around her, and she was asked to teach with a group of academics including Dr. Leta Hollingworth in psychological foundations. Between 1926 and 1930, Strang worked as a research assistant in the psychology department and took courses in psychology (Strang, 1971). In Strang's initial year in the psychology department, Hollingworth's book, *Gifted Children: Their Nature and Nurture*, was published. Around 1930, Strang began to focus her interest on developing a program for reading improvement for high school and college students and invited outstanding professional associates to teach in her reading course over summer. One of these people was Paul Witty who subsequently moved into the field of gifted education and is the subject of a chapter in this book.

Strang had a relatively rapid promotion for a woman in higher education, especially for a woman of this era. Three years after completing her dissertation, Strang was appointed in 1929 at Teachers College as an assistant professor. She was subsequently promoted to associate professor of education in 1936 and to full professor of education in 1940. Although Strang was attracted to the field of psychology, her main studies were in education. In addition to her responsibilities in academia, Strang was extensively involved in professional organizations. Two of her significant contributions were editing the journal of the National Association of Women Deans and Counselors from 1935 to 1960 and chairing the research committee of the association from 1930 to 1939 (Ohles, 1978). She also participated as an active member in the International Reading Association for most of her professional life (Strang, 1971).

Establishing the American Association for Gifted Children (AAGC)

In 1946, Professor Ruth Strang and Pauline Williamson founded the American Association for Gifted Children (AAGC) because they believed that "the gifted were the most neglected children in our democracy" (American Association for Gifted Children, n.d., para. 1). AAGC was the first voluntary non-profit organization in the United States devoted to the needs of gifted, talented, and creative children. Established in New York and located at the University of the State of New York, Strang served as a director of the AAGC while Williamson became the executive secretary.

In 1946, Dr. Paul Witty was elected vice-president of the AAGC. As one of his association activities, Witty edited a book on giftedness in which Strang wrote her first chapter, "Mental Hygiene of the Gifted." Meanwhile, she became treasurer of the AAGC (Ohles, 1978). The initial aims of the association included the review, recognition, observation, and stimulation of creative work among gifted children; and the correspondence with educational, community, and industry leaders to press for opportunities for gifted children. A major goal was to foster a clear appreciation of the possibilities and capabilities of gifted children and to promote plans to further their interests. Additional aims included the encouragement of public sentiment in favor of plans to recognize gifted children at an early age and to promote their welfare as individuals. The publishing of writings,

papers, books, pamphlets, periodicals and other materials for cultivating and fostering the aims of the association was seen as integral to its mission (American Association for Gifted Children, n.d.). Eighteen years after Strang's death in 1971, the AAGC was incorporated as a non-profit organization in North Carolina, without members or capital stock, and was relocated to Duke University, Durham, North Carolina. The AAGC continues its activities today as the first national advocacy organization for gifted children established in the United States.

Strang's Interest in Giftedness Peaked

During the 1950s, Strang's interest in gifted education peaked. She researched the concepts of giftedness and creativity, the identification of the gifted, the psychology of the gifted, gifted development, the reading development of the gifted, and reading difficulties of the gifted. She wrote leading chapters and journal articles, and she spoke to academics, teachers, and parents on these issues. In 1958 she wrote “Four Guideposts for the Education of the Gifted,” pamphlets published for the AAGC and distributed to State Directors of Special Education. These publications provided practical strategies for the development of the gifted and were written to inform parents, teachers, administrators, and gifted students.

In the Administrators' Guidepost, Strang (1958a) recommended a broad range of special provision for the gifted which she maintained superintendents and principals needed to be aware of in order to create favorable learning conditions for advanced students. The range of educational provision she recommended for gifted students included a library period a week for “pupils having superior reading ability” (Strang, 1958a, p. 2), an extra subject which could be a foreign language or advanced curriculum, a program organized for a group of gifted children for two periods, ability grouping with a special teacher to engage in intellectually stimulating activities, an honors program offering enriched curriculum, a half-day special enriched class for a group of gifted students, an intellectually gifted class within a school, rapid advanced classes with the curriculum telescoped from three into two years, advanced college courses at high school or summer programs of accelerated classes, as well as special schools for gifted students or specialized schools for science, music, art, and performing arts students. Strang was highly aware of the

different approaches that could be used to extend and motivate gifted students' learning. She made various recommendations in the *Guideposts* for gifted students, parents, and teachers to consider.

In 1959, *Creativity of Gifted and Talented Children* was published under the auspices of the AAGC; the book contained chapters based on speeches to the American Association of School Administrators given by Ruth Strang, Paul Witty, and James Conant. During this decade the AAGC appeared to create a strong presence. This period of activity culminated with Strang (1960) writing her only book for parents of gifted children entitled *Helping Your Gifted Child*.

On Strang's compulsory retirement from Columbia University in 1960, at the age of 65 years, the May issue of *Teachers College Record* recorded her works, including 500 articles and 35 books in health education, guidance and personnel administration, gifted education, psychology, and reading (McCullough, 1971). Hers was an academic career that ranged extensively over several specializations and across several decades.

To continue her academic life, Strang moved to the University of Arizona to become Professor of Education, a position she held until 1968. The required area of her academic work at University of Arizona was reading development, one foci of Strang's work since the early 1930s (McCullough, 1971). Although familiar from her childhood, Arizona was far from New York, where the AAGC was located. With this change of professional focus and location, she had less opportunity to pursue her interest in gifted education, although she continued to investigate and write occasionally on related issues, such as creativity in the elementary classroom (1961), self-concepts of gifted adolescents (1964), the able reader (1965), and a plethora of material for educators, psychologists, and parents. Strang was always concerned with the importance of all children developing their potentialities and in 1965 wrote *Helping Your Child Develop His Potentialities*. The final professional position Strang held was in 1968–1969 when she was appointed visiting professor of education at the Ontario Institute for Studies in Education (OISE). Hers was a life spent in academia.

The Emergence of Strang's Academic Interest in Giftedness

From her early career when she spent much of her time focusing on child and adolescent development, Ruth Strang's interest and studies in guidance

and reading development were established. Strang openly acknowledged that her career developed in response to her need for employment and the opportunities offered to her for new learning (Strang, 1971). Approximately 15 to 20 years after her initial academic university studies, Strang's explicit academic interest in gifted education emerged, and again she worked to build another professional body of subject matter. This time she was attracted to the field of gifted education. She had written previously on various psychological and educational perspectives, and she was able to incorporate and transfer her previous expertise on child and adolescent development, education, and research into her new interest of gifted children. Her writings in books and journal articles reveal her perspective on giftedness.

Giftedness

One of the most significant chapters Strang wrote on the nature of giftedness appeared in the *Fifty-Seventh Yearbook of the National Society for the Study of Education* (Strang, 1958b), which focused on the education of the gifted. She acknowledged that "giftedness is one feature of the total development of the child" and that it is "related to all the other aspects of his growth." She perceived giftedness as "many-sided, many patterned" (Strang, 1958b, p. 64) and was aware that giftedness could manifest itself in various forms. Strang contended that different personality patterns were related to different talents, whether they were scientific, artistic, musical, or leadership; and that among the intellectually gifted, talented individuals existed in different fields. She recognized individual differences amongst children designated as gifted, and she believed there were varying degrees of giftedness. She also proposed that the realization of giftedness is a developmental process, maintaining that "giftedness is progressive from birth to maturity" as the individual "responds to his (or her) environment" (Strang, 1958b, p. 65).

Strang's view of giftedness (Strang, 1960) was inclusive, and she liked to use Paul Witty's (1959) definition, "those whose performance in any valuable line of human activity is consistently or repeatedly remarkable" as this broad definition included students with high abstract intelligence. Additionally, the definition emphasized achievement and potential ability, as well as taking into account character traits such as persistence,

purposefulness, and a sense of responsibility. Strang liked this definition as it also ruled out the use of one's abilities for selfish or destructive purposes; one's focus on “achievement must be socially useful” (Strang, 1960, p. 8).

Strang noted that different kinds of giftedness can be distinguished and that various words were used to describe the gifted. These terms included the *infant prodigy, genius, high IQ, the brightest*, the *exceptionally able*, the *most capable*, the *able learner*, the *rapid learner*, the *mentally advanced*, and the *academically talented*. Strang was also interested in the origins of special talents (Strang, 1958b), questioning whether specific talents are inherited, or whether they develop in response to environmental stimulation.

Strang was conscious that giftedness could be inhibited by “extreme deprivation of love, by a lack of intellectual stimulation” and by limited social relationships. She associated characteristics such as “spontaneity, originality, creativeness, and achievement” with “truly gifted children” (Strang, 1958b, p. 65). Strang's concept of giftedness was developmental as well as being dynamic, as she perceived it as a process of becoming. She acknowledged the importance of accomplishments as well as an individual's capacity. Strang was aware that “top-flight performance in any field requires the interaction of three factors: capacity, opportunity and personality” (Strang, 1958b, p. 76).

Furthermore, in her writings, she acknowledged that gifted children were found in various racial and ethnic groups. She cited research by Witty and Jenkins (1934), Martin Jenkins (1948) as well as Catharine Cox Miles (1954) that referred to African American children with high IQs, and concurred that the educational achievement of African American children with high IQs was similar to that of other gifted children.

Identification of Gifted Students

Strang was aware that if educators were to identify gifted children to help them develop their potentialities, they must have an understanding of the nature of giftedness (Strang, 1958c). Additionally, she advocated for the use of standardized tests of intelligence to identify the intellectually gifted child, even as early as the late preschool years. She used evidence from Terman's (1954) studies to support the use of tests of general intelligence to predict gifted students' ability to achieve. Moreover, she advocated

children's progress be periodically reviewed by parents and teachers in order to discuss prospective experiences that would be in the best interests of the gifted child's development. She was also conscious of the valuable evidence gained from “skillful, systematic observation in natural situations” of giftedness (Strang, 1958c, p. 330) during the preschool years. She maintained these observations could be made at various times in a range of situations by parents and teachers.

Although Strang was aware from her work with gifted students that “there is great diversity among gifted children designated as gifted” (Strang, 1960, p. 21) and that no single personality pattern fit them all, she did maintain that gifted students were similar. General characteristics of gifted children that Strang identified were: intellectual curiosity, ingenuity and superior ability in solving problems, a wide range of interests, superior use of language, creativeness, alertness, ease of learning, longer-than-average attention span, excellent memory, social poise, purposefulness, ability to reason, and skill in self-evaluation (Strang, 1958c). Strang was keen to raise teachers and parents' awareness of how favorable psychological environmental conditions could influence the development of these abilities in individuals from birth through kindergarten years and how unfavorable conditions could inhibit a gifted child's development (Strang, 1955a). She was an educator who clearly articulated the importance of the early years for a gifted child's development and the importance of early identification.

Furthermore, Strang (1957) recommended that counselors could identify un-derachievers by identifying discrepancies between student scores on intelligence tests and their overall school marks or marks in specific subjects. She suggested three sources of information counselors could use to identify gifted children in schools: their cumulative records, results of intelligence and achievement tests, and teachers' observations.

By 1960, Strang was advocating that the IQ test should not be used as a sole criterion to identify a child's giftedness but that multiple criteria should be taken into consideration. These included the teacher's appraisal of the student's ability, the student's school achievement, counselors' and parents' opinions, the student's reading proficiency, mathematical ability, and hobbies and interests (Strang, 1960, p. 27).

Strang also advocated for an individual case conference for the gifted student. She recommended the class teacher or the school guidance worker or psychologist and the parent who could give and obtain evidence of the

child's capacities, aptitudes, and achievement be involved in this conference. She maintained the most accurate student appraisal was one based on a child's developmental record. In addition, a regular cumulative record should be supplemented with reports of interviews with the family of the gifted child. Her case conference approach is still highly relevant today.

Gifted Development

Strang was curious to investigate "how gifted children got that way" (Strang, 1954a, p. 215). She concluded that gifted children are "lucky" as they have had a fortunate combination of heredity and early childhood experiences and believed that "giftedness is a product of the interaction of native ability and life experiences" (Strang, 1954a). Her understanding of gifted development from studying gifted children was that a certain level of experience is essential for the gifted child's ability to develop.

Strang's view of intelligence was that it is learned, as it constantly creates itself through life experience. She did not believe intelligence was something given at birth but rather that the gifted child is increasingly able to use the environment to good advantage. She was able to identify the essential factors that influence the gifted child's development, noting that material things are not enough, as lack of love can restrict a young child's "use of exploring, relating, organizing quality of mind" (Strang, 1954a, p. 215). It was evident that she also was aware of non-intellective determinants of achievement, which contributed to the development of giftedness, such as an individual's persistence, perseverance, drive, purpose, and interpersonal relationships. Additionally, she focused on the importance of suitable experiences for the development of the gifted child and noted that lack of these would inhibit the gifted child's development.

Psychological Needs of the Gifted

The "Inner World of Gifted Adolescents," written by Strang in 1950, revealed her awareness of the need for educators and counselors to empathize with exceptional children in order to understand them. She also noted that this was the basis for "effective guidance and instruction" (Strang, 1950, p. 97). According to Strang, the conditions of the home, school, and community, if positive, contributed to the optimal development

of gifted children. However, if the physical, social, and emotional needs of gifted children are not met in these environments, then some gifted children will be disturbed emotionally and fail to make satisfying social adjustment. Strang linked the importance of what she called “mental health” (Strang, 1951) with what we would now call “psychological health” to one's emotional maturity or “emotional intelligence” (Goleman, 1996). Referring to the research of Witty (1930) and Terman and Oden (1947), Strang proposed that gifted children are “superior in mental health as well as in mental ability; they are accelerated in character development as well as in intellectual accomplishment” (Strang, 1951, p. 133).

Nevertheless, Strang acknowledged differences amongst highly intelligent children with their “special perplexities and problems of adjustment” (Strang, 1951, p. 134). She suggested counselors help teachers by discussing difficult cases with them (Strang, 1956a). In her writings, Strang emphasized that socio-economic level seemed to be less important as a determinant of personality and character than other environmental conditions. She stressed that the response which a gifted child evokes from others in the child's environment from infancy to adulthood was a much more important factor (Strang, 1958b, p. 82).

For optimum development, the gifted individual requires attention to his or her emotional and social life as well intellectual needs. Strang maintained emotional blocks prevented gifted children from realizing their potential. Feelings of social isolation, of failure in social relations, fear of the future and lack of confidence in their ability to make their own decisions were frequently mentioned as personal issues by gifted adolescents. Some adolescent boys who were accelerated were found to have a special difficulty with heterosexual relations. The students with IQs above 170 (Hollingworth, 1926; Terman, 1954) reported the most difficulty with social adjustment due to lack of friends with similar interests. Strang stressed that teachers needed to be mindful of these situations and create groups of students with highly intellectual children and those with special talents in art, music, and other fields where students need special environments, so that they can relate to others socially and emotionally and develop their abilities (Strang, 1955b).

Vocational guidance for gifted students was also reported as an issue for students with multiple abilities. Strang recognized that conflict between parental ambitions for the child and the child's own interests, abilities, and

vocational interests could create emotional difficulties for the child (Strang, 1952). Specifically, the issue of gender was raised as a concern for gifted girls in regard to vocational adjustment (Strang, 1951), although the term *gender* was not explicitly used in her writing. She was aware that gifted girls are given numerous subtle messages, neither to be as ambitious as their brothers nor to consider strong vocational interests. Yet, in New York in the 1950s, Strang believed many vocational fields were opening to women as gifted girls could consider psychiatry, medicine, law, and even engineering as career options without too much difficulty (Strang, 1951, p. 147).

Reading Development of the Gifted

As early as 1946, Strang investigated the reading interests of seventh-grade and eighth-grade students in 30 high schools of different types (Strang, 1946). She noted differences amongst exceptional students. These advanced students expressed an interest in philosophy, religion, music, art, plays, poetry, biography, personality development, and teenage life issues. Strang's perceptive awareness of differences in adolescent students and their interests were evident.

Strang proposed that half of gifted students learned to read by the time they entered school and that many were disappointed by their school experiences. She maintained that gifted students learned by associative methods rather than by rote learning which was a prevalent teaching approach in the 1950s; gifted students also sought generalizations, were interested in abstract aspects of subject domains, required challenge, and preferred to work independently. Yet, gifted students still needed instruction in effective methods of reading and study.

In 1954, Strang wrote an article on the reading development of gifted children with IQ's of 120 and over, based on a study of the reading autobiographies of 54 secondary students in Grades 7–9 from a group of Long Beach, California, schools. She obtained this data through the co-operation of former doctoral student, Dr. Virginia Ballard, Supervisor of Guidance and Psychological Services in the Long Beach schools. Her findings supported Terman's earlier study of gifted children, which found that gifted children learn to read early. She surveyed students asking them how they learned to read and to give their preferences in reading material at

various year levels, their specialised interests, and their reading habits (Strang, 1954b).

Strang concluded that gifted students have broad reading interests and that they learn to read by all methods implemented in schools even though the phonetic approach had a special appeal to them as the gifted students had strong analytic abilities (Strang, 1954b, 1956b). She found that reading contributed to gifted students' personal-social development in many ways including building self-esteem, as reading was something they could do well. It emerged from students' comments in the study that reading was a satisfying way to spend leisure time and helped develop their special talents. She concluded that biographies and autobiographies gave these students "insights into the lives of other gifted persons with whom they may identify themselves" (Strang, 1954b, p. 40). Furthermore, literature helped these gifted students to understand themselves and to learn how to manage social situations and to solve or accept some of life's problems.

Gifted with Reading Difficulties

It was evident to Strang that gifted children could also have reading difficulties which could lead to underachievement (Strang, 1953). She maintained that gifted children were often neglected in reading programs. She also was conscious of how highly gifted children could use reading as an escape from the real social world because they might experience difficulty coping with their chronologically aged-peers. She recommended that underachieving gifted students needed counseling to help them relate to others and to experience being part of a group.

Teachers of the Gifted

In addition to investigating the development of gifted students, Strang was interested in their perceptions of their teachers. A study of 50 gifted students in middle and high school, on students' perspectives of good teachers was conducted in New York, Pennsylvania, and California and reported by Strang at the Atlantic City meeting of the American Association of School Administrators (Strang, 1959a). Characteristics of good teachers as described by gifted students included "a good background of knowledge,

skill in teaching, versatility, and a willingness to let students take initiative and responsibility" (Strang, 1959b, p. 43). She added,

> gifted children want teachers who know their subject, related fields, and current world events. They also appreciate teachers who use humor and illustrative material to add interest to the subject, and who have skill in relating the subject to other fields and to the pupils' lives. (Strang, 1959b, p. 43)

Strang maintained that gifted children observed their teachers in action and could vividly describe the qualities desired in their teachers.

Parenting the Gifted

As an experienced educator, Strang wrote a book in 1960 for parents in which she suggested how they could help their gifted child. In her introduction, she advised parents that because

> child development takes place in a relationship, you need to look into your own motivations and feelings as they may affect your child's achievement. We offer no pat prescriptions. We hope this book will give you insights that will foster better understanding. (Strang, 1960, p. 4)

Strang based many of her comments on three research studies in particular. These included Terman's longitudinal studies of gifted students (Terman, 1954); Leta Hollingworth's study of extremely gifted children (Hollingworth, 1926); and Paul Witty's study of 300 gifted children conducted in various areas of the country, many from low socioeconomic backgrounds (Witty, 1930).

Other sources of information came mainly from Strang's own work with parents of gifted children who wrote for advice or from gifted children themselves who expressed their views on their education and guidance. She was able to advise parents on gifted students' characteristics in various domains and on ways to identify these children. She stressed the importance of environmental influences in the home and how parents could help their

child's development through their parent-child relationship and by providing opportunities for the child to develop and use their abilities.

In her parenting book, Strang focused on the various developmental phases of the gifted child in detail: pre-school, elementary level and the gifted adolescent. She elaborated on difficulties which gifted children may experience such as under-achievement, choosing an appropriate education, ways to prevent asynchronous development (what Strang described as one-sided development), choosing a vocation, emotional difficulties, developing a sense of responsibility and appropriate guidance services. Recommendations were made to parents on ways to provide for their gifted child's educational needs. She discussed the importance of parent-teacher collaboration and offered a range of resources in regard to their reading needs.

Ruth Strang's Twenty-First-Century Legacy

By establishing the American Association for Gifted Children (AAGC), Strang and her colleagues raised awareness amongst teachers, counselors and parents of the needs of gifted, talented, and creative students across the United States. Her actions emphasized the importance of advocacy for gifted students and contributed to an awareness of the research on giftedness and gifted education.

Ruth Strang was a respected female professor of education at a leading university. She was an educator and astute counselor of gifted students. She was highly perceptive of gifted students' developmental needs and spent decades honing her knowledge and understanding of child and adolescent development. Her writings on the nature of giftedness were based on case studies of gifted children and research on giftedness. As one of a group of academics at Teachers College interested in giftedness, she added to the credibility of the field of gifted education in the 1940s, 1950s, and 1960s. Her depth of knowledge in regard to adolescent development, guidance and psychology of students, and the importance of reading development provided her with the broad educational knowledge that she applied to her studies of gifted students. Professor Ruth May Strang was a woman ahead of her times as an observant and insightful educator; much of what she wrote on the psychological and educational needs of the gifted continues to be relevant to gifted children and adolescents today.

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20

ANN FABE ISAACS

She Made Our Garden Grow (1920–2001)

Karen B. Rogers

In 2002, at the Annual Conference of the National Association for Gifted Children in Denver, Colorado, the first Ann Fabe Isaacs Founders' Memorial Award was presented to Mary Frasier of the University of Georgia. At this ceremony, Te d Isaacs, Ann's husband, asked that his words about her contributions to the organization and to the field be read as the first recipient was given her check and plaque. His words tell much about what Ann contributed during the 60-plus years she devoted to the causes of gifted, talented, and creative children and adults:

> As Ann's husband I was keenly aware of the time and dedication that she gave to the early years of NAGC. This is typical of what leadership in volunteer organizations involves. To use a current expression, I have been there, done that. These thoughts are uppermost in my mind as I sign the agreement relating to this award. First, I thank the leadership of NAGC for their acceptance of my suggestion that this award be created. Second, I extend my personal congratulations to the winner. I know that neither the honorarium nor a plaque can fully compensate for the effort involved. Third, I express my most sincere appreciation for the great work of all the membership of NAGC in carrying forward Ann's original vision. The protection, stimulation and development of talent and creativity is [sic] critically important for the nation and the world. (S.T. Isaacs, 2002, p. 1)

Since that time, the Ann Fabe Isaacs Founder's award has been bestowed on many of the thinkers, leaders, and researchers in the field of gifted education, from John Feldhusen, Julian Stanley, James Gallagher, and Joseph Renzulli, to Abraham Tannenbaum and Nancy Robinson. In reflecting on her work, it becomes evident that Ann Isaacs was there from the very beginning to plant the garden of gifted education, keep it weeded, fertilize it properly through communication and networking, and nurture its growth into the field it is today. It was fitting that this award was created in her memory. She did, indeed, illuminate the practical world of gifted education during her lifetime—as leader, networker, organizer, advocate, advisor, and school consultant. She created the organization which supports the current practical work in this field, the National Association for Gifted Children, and she developed, wrote for, and edited the journal that guides this field, *Gifted Child Quarterly*. In her later years (1974–1989), she established a second national organization that consciously included creativity as a part of giftedness, the National Association for Creative Children and Adults, and she developed, wrote for, and edited a journal, *Creative Child and Adult Quarterly*, that guided this expanded field. If the development of two professional organizations and the editorship of two associated research journals do not suffice as "illumination," it is unclear what would!

The metaphor of the *garden* guides the archival research conducted on Ann Fabe Isaacs. Thanks to a University of St. Thomas "Sudden Opportunity" grant,[1] I visited the Jacob Rader Marcus Center of the American Jewish Archives in Cincinnati, Ohio, where the Isaacs family had deposited all of Ann's writings, correspondence, art, and musical compositions (including performance tapes) upon her death in 2001.[2] This collection also includes nearly every issue of the two journals she established across her 28-plus years in organizational leadership and development in this field. I spent several days at the Center analyzing Isaacs' editorials, journal articles, and book chapters. Research in Cincinnati was followed by a short visit to the Washington, DC, headquarters of the National Association for Gifted Children to gather additional documentation about her work with the organization, her journal editorship, and the establishment of the Founder's Award.

Sprouting the Seedlings of Gifted Education

Born in Cincinnati in 1920 of middle-class Jewish parents, Bessie and William Fabe, Ann was to spend her whole life there. Two questions are addressed in this chapter:

1. How did a hometown Cincinnati girl become a well-known advocate and voice for gifted education, both in the United States and abroad?
2. What was the context that made what she advocated acceptable during the period in which she was active?

Ann graduated from the University of Cincinnati in 1944 with a Bachelor of Arts degree in early childhood education. Her college transcripts show that she was mostly a B student with a few poor grades in subjects such as French, chemistry, social psychology, and mathematics. She was 24 when she finished her degree, 5 years into her 61-year marriage to Selig Theodore (Ted) Isaacs. Before beginning her graduate studies at Xavier University in 1949, Ann spent the next few years working for the Hamilton County Welfare Department as a psychologist (1945–1950), settling down to life with Te d after his World Wa r II service in the Philippines, raising her two girls, Margery and Susan, and acquiring the trappings of home and hearth. Her work in Hamilton County was described in a printed bio of her as "pioneering" in that she used standardized psychological tests for career placement and advancement decisions (Billman, 2001).

Soon after her first child, Margery, was born in 1947, Ann decided to go back to school at Xavier University to be trained in counseling and guidance, educational foundations, and educational administration, acquiring a master's degree from Xavier in 1950. Her transcripts show more A's and B's than did her undergraduate work. It is evident that she had found the fields in which she would produce her life's work. After receiving her degree, she began her own preschool, the Personality Development Pre-School, which operated from 1950 to 1957. This school brought focus to what Ann would do for the rest of her life. The school attracted many very bright children from the surrounding Cincinnati neighborhoods. Having a psychometric background and being wellversed in the literature and research on giftedness that preceded her own work, Ann confirmed that a large number of her students were gifted. At one point she reported that the mean IQ of her students in the school was 145 (Isaacs, 1963b). Over the years, Ann stated, "[I] noticed some of these exceptionally bright students

failed to progress accordingly after leaving. I then began studying ways to enhance the education of gifted children" (Isaacs, 1963b, p. 125).

It is likely that much of the advice she provided the parents of her preschool students influenced the next directions her life took. In 1950 she began work on a doctorate at Ohio University, taking courses in psychological foundations, counseling, and administration through 1960 while simultaneously running her preschool and raising her family. What brought her to the point of deciding to found a professional organization she ultimately named the National Association for Gifted Children (NAGC) is not fully known, but in the years after its establishment she wrote and spoke often about the "injustices" she saw happening to those very bright children who did not make it on their own. Her experiences may have led to perceptions that these children, their parents, and their teachers needed resource support and advice possible through a national organization. She began that organization in her own home office, writing articles she submitted with some success to various journals such as *Mental Hygiene* (Isaacs, 1957a) and *Educational Administration and Supervision* (Isaacs, 1956b). She answered parents' letters using the letterhead of NAGC, named herself "president" of NAGC, and began proceedings in 1954 that led to Articles of Incorporation in 1957. Her husband, Ted, recalled:

> I thought it would be interesting for you to know some for the early history of NAGC derived from my personal experience. It has an element of romance. I am reaching back more than 50 years to 409 Clinton Springs Ave in Cincinnati where a young couple, Ann and Te d Isaacs, had just moved into their first new home. I digress a moment to describe Ann for those of you who have never met her. She was a tall, dark haired, blue eyed beautiful woman, dynamic, full of energy and a delight to be with. If you get the idea from these comments that I loved and admired her, you have it right…. Since the new home was large and some additional income would be most desirable she decided to establish her own nursery school when Margie reached age four. As you might expect with her training in psychology and her experience doing psychological testing for Hamilton County she of course tested all of her nursery school children with the Stanford-Binet Intelligence Test. Without having made any pre-selection she found that she had gathered a group of unusually bright children…. Since many of the

children lived in our own neighborhood Ann found it easy to follow their school experience. She did not collect detailed statistics but was still able to keep in touch with most of the children. To her amazement, a number of them and particularly the ones with the highest IQ scores did poorly in school. Something was clearly amiss. Contacts made elsewhere showed a similar pattern. Apparently there is a widespread situation where schools give special attention to handicapped and other children who are limited in various ways and leave the brightest children to sink or swim. It is certain that whether it is the fault of the schools, or not, giftedness often is lost in the early years. Why should we be concerned? Life is a competition and to the victor belong the spoils. In answer Ann would say that giftedness is an essential natural resource. It is the gifted among us who make the difference in building a better world. Ann devoted 50 years of her life to promoting this concept. (S. T. Isaacs, personal letter to NAGC, 2001a; S.T. Isaacs, personal letter to NAGC, 2001b).

The Articles of Incorporation for the National Association for Gifted Children were signed by Ann, James Stover, Paul Rollings, and Zarita Schwartz, all of Cincinnati, in August, 1957. She was named as the person on whom process, tax notices, and demands would be lodged on behalf of NAGC. The organization was listed as having five purposes ("articles"):

1. Stimulation of interest and research in gifted education including guidance, developmental, remedial and preventive instruction related to education and training
2. Dissemination of scientific information regarding the gifted
3. Analysis of the problems of the gifted and dissemination of information about good practices in all phases of working with them
4. Provision of opportunities for classroom teachers to study about and improve methods of working with gifted learners
5. Publish and report scientific and experimental investigations as well as practices that result in improved methods for working with the gifted. (NAGC, 1957)

The first seed was planted.

Planting the Garden

In various listings of NAGC officers and boards of directors, Ann was listed as the first President of NAGC, in office from 1954 to 1959. William Vassar, a subsequent president (the sixth, from 1966 to 1968), described her as one "who would meet a potential board member and invite him or her to join the Board" (Vassar, 1998). Vassar himself joined the organization in this way. They met at the 1960 White House Conference on Children and Youth, and Ann immediately set about encouraging him to "do something for Massachusetts." Needless to say, the Board was very large with fairly poor attendance at the Board meetings held at the national convention each year. Vassar recalls: "Nothing happened at NAGC unless Ann did it or supported it. She was bright, talented, and charming most of the time, but could be an ogre if she didn't get her way" (Vassar, 1998, pp. 2–3).

The organization began to grow. Probably the most significant events to grow the initial seedling into a garden were Ann's establishment of the *Gifted Child Quarterly* (*GCQ*) in early 1957 and the first national conference, which she arranged to co-sponsor with the American Association for the Advancement of Science (AAAS) held in December 1957 in New York City. The first year's four issues of the journal were written entirely by her and were called *The Gifted Child Newsletter*. In the first issue, published in January, she listed NAGC's goals as (a) serving as a clearing house, (b) helping districts set up gifted programs, (c) publishing the newsletter, (d) subsidizing research at graduate levels, and (e) helping gifted individuals. These goals (with the exception of the fourth one) appear to be the same that NAGC has today. While searching the documents held at the NAGC office in Washington, DC, I noted the white board in the conference room listed its most current version of the NAGC goals: (a) expand audiences, (b) diversify revenue, (c) balance the budget, (d) diversify communication channels, (e) increase membership, (f) increase convention attendance, and (g) optimize network investment. Except for the last of these goals, it is easy to imagine Ann Isaacs having these same very direct and practical goals in mind as she organized her first convention and wrote the first four issues of *The Gifted Child Newsletter*!

Before 1957 had ended, Ann Isaacs had contacted leaders such as Louis Fliegler, Lewis Terman (before his death), Paul Witty, Robert Havighurst, Richard Boardman, Joseph Justman, Merle Sumption, Walter Barbe,

Nicholas Mosely, Norma Cutts, Robert DeHahn, Harry Passow, and William Cruickshank, among others, with some agreeing to join and some letting the opportunity pass. Ann used the first issues of the *Gifted Child Newsletter* to communicate what various states were doing to improve the education of gifted children. Michigan and Illinois already had large groups of advocates who were participating in gifted education, as did Minnesota. As the year progressed, she worked toward expanding the newsletter to 30 pages per issue. By 1958, the name of the publication became *Gifted Child Quarterly* (GCQ) and had, indeed, reached the goal of 30 pages per issue (Isaacs, 1958a). The convention was held in Indianapolis in co-sponsorship with AAAS again and included panels with the National Association of Secondary Principals. Elections for the presidency were held that year at the convention, and Walter Barbe was elected to fill the term from 1959 to 1960, to be followed by Victor Goertzel from 1960 to 1962.

As Goertzel came into the presidency of NAGC, the Board of Directors decided to amend the Articles of Incorporation for the organization. Signed by Goertzel and Secretary, Gladys Grimjes, the articles were quite similar to the earlier version. The final article, however, left all the resources and assets of the corporation to Ohio University for establishing training and evaluation programs in gifted education should the organization be disbanded or dissolved. There were 25 names listed as "trustees" of NAGC at that time, including Ann. The organization appeared to be growing and becoming more sophisticated, perhaps with an eye toward future growth and development rather than managing to "survive" for another year.

By 1961–1962, Ann, as Editor-in-Chief of *GCQ*, as well as its publisher, had a full editorial board to advise her on articles and themed issues. John Gowan, E. Paul Torrance, Benjamin Fine, and Walter Barbe were on the first *GCQ* Editorial Board. Every issue during the third through eighth years of publication started with a research study by Paul Torrance, almost as if *GCQ* were his private publishing venue. Ann always wrote a one- or two-page editorial and often a second or even a third article dealing with the more practical issues of teaching strategies, parenting advice or perspectives on giftedness. Often her contributions would make up to a third of an issue, not including the artwork produced by her to illustrate various themes and ideas. By the fifth year, the journal had increased to 177 pages for the year and up to 211 pages by 1965.

The garden was now fully planted and thriving.

Maintaining the Garden

Ann's editorials in the early years of NAGC and *GCQ* can be classified into three kinds of messages: "Get On Board, People," "Here is What Gifted Children Deal With," and "Here is What Teachers Can Do." The years 1956 to 1960 were primarily Isaacs' contributions of the "President's Message," Annual Convention Meeting Notes, and pleas for funding, membership recruitment, and expanding the numbers of state affiliates (Theme: "Get On Board, People!"). Her contributions to the gifted literature during these years were an annotated bibliography of the gifted research for *Educational Administration and Supervision* (Isaacs, 1956b) and publication of papers she presented at the first annual NAGC meetings on "Needs of Today's Gifted" (Isaacs, 1956a) and "Influence of Grades on the Gifted Child's Awareness of Potentiality" (1957c), followed by a chapter in the 1958 *National Society for the Study of Education Yearbook* on "Nursery School Programs for the Gifted." None of these were written in a traditional scholarly format or built on theories suggested by scholars before her (e.g., Galton, Terman, Spearman, Cattell, Wechsler), but relied primarily on Ann's own experiences with gifted children, her reading of the literature, and her initial experiences in consulting with schools about the formation of gifted programs.

When she made statements about who the gifted are or what their problems might be (Theme: "Here is What Gifted Children Deal With"), she characteristically used a case study of a child with whom she had been acquainted or whose family she had interviewed. She tended to generalize about giftedness from the example described. This same methodology has continued in the field to this day with a focus on qualitative case study of "extreme" examples from which we study the phenomenon of giftedness (e.g., Gross, 2005; Morelock, 1996). Hence, we might consider the possibility that this approach to understanding giftedness was pioneered by Isaacs and illuminated a path through the garden for others to follow. Her approach did bring interest and sympathy to the "plight" of the gifted child, a much-needed emotion if changes were going to be made for them.

Her third theme in these years dealt with the failure of teachers, schools, and parents to recognize when gifted children were having difficulties dealing with their gifts and the need to support them, a theme she would extend considerably in the next decade of her writing. Of particular interest

in her early writing was the first case study she developed of a young, gifted musician named Robert (Isaacs, 1957b). Entitled “To Be or Not To Be: A Case History,” the article profiled a young violinist named Robert, who had been performing with symphonies since age 9, and at 17, when she interviewed him, was studying away from home at a music conservatory. She expressed her “surprise” that Robert did not make sacrifices or choices in order to pursue his talent, did not seem to possess a “compulsion to play,” managed to have a circle of friends, and engaged positively in academics and social activities. He was loath to practice unless his mother was in the room and kept him at it, and his parents were vocal about Robert's not taking on a career as a musician, despite his great talent. This ran so counter to what Isaacs knew of Terman's research on the “most successful” Termites in his study—that they had known early what their professional and personal goals were to be and then had pursued those almost single-mindedly. Isaacs raised concerns in this article that Robert had all the makings of a child whose talent would be lost to the world. Robert himself had determined that in order to be considered a “musician,” he would need to concertize, but he did not seem to have the motivation and drive to develop the skills he would need to do so successfully.

This case study may have also marked the beginning of much of Ann's work in the next decade on the causes of underachievement, especially the home and school catalysts that enhanced, developed, or hindered the full development of talent. One felt while reading this more philosophical case study that perhaps Ann was trying to figure out why she had not pursued music more intensively in her early years. In fact, this reflection may have been the seed that she planted then and began to develop about 10 years later when she went on for serious study of Hebrew liturgy and 10 years beyond that in musical composition and Hebraic music tradition (Isaacs, 1974a).

Rocks in the Garden That are More Than Ornamental

In the decade of the 1960s, one would have thought Ann, the organization, and the journal would take up the national concerns for leadership education so that the United States could recoup its perceived loss of international scientific achievement. With the launch of Sputnik, comparatively little was written about these national concerns either by Ann

or by other contributors to the journal. In 1958, substantial money was provided through the National Defense Education Act (NDEA) to identify America's brightest and most talented students who could profit from advanced mathematics, science, and technical programming (Jolly, 2005, 2009). But there seemed to be a disconnect between the powerful curriculum ultimately developed with this money and leadership from both NAGC and TAG (The Association for the Gifted, a division of Council for Exceptional Children) organizations. Eisenhower's 1960 White House Conference on Youth and Children could have been a powerful stepping stone to institutionalizing gifted education and having the general public realize what a potential natural resource the gifted could be, but that direction was not taken up. Ann was instrumental in ensuring that many of the up-and-coming scholars and leaders in the field were a part of the White House Conference (Isaacs, 1960b), but little appeared to have come from this advocacy with respect to NAGC. A summary of the conference itself was written in Issue 2 of the 1960 volume of *GCQ*, and a summary of NAGC's viewpoints was included in Issue 4 of that year.

Part of this lack of alignment between the two gifted organizations may have been the NAGC power structure itself, as reflected in Vassar's recollections of this period (1998). The presidents of NAGC during these early years of the 1960s included a psychologist, a retired superintendent, a principal, a state director, and two transitional gifted center directors, who may not have fully understood the national implications. Alternatively, perhaps Ann kept busy with publishing and editing and writing for *GCQ*, setting up the annual conventions, handling parent information requests, membership recruitment, and providing teacher/school in-service training extensively across the United States and did not see the bigger picture of "what could be." Could this have been the first indication of Ann Isaacs' ultimate demise-she was overwhelmed by too many weeds or floral species to see the garden as a whole?

Meanwhile, Ann continued to write her editorials in the 1960s around her three main advocacy issues: Who are these gifted children? What happens when we don't challenge them? and Why are schools ignoring them? She spent greater amounts of time looking at underachievement through the lens of the lack of creative development. Her concerns tended to focus more on recruiting membership to expand NAGC and on looking for donations to NAGC rather than on finding ways to help schools secure the state and

federal funding they might need to develop, maintain, and expand program services for gifted children. Over the course of the 1960s, Ann wrote 71 articles mostly for *GCQ* (e.g., Isaacs, 1963b), three chapters, and two books on creativity, in addition to her quarterly editorials for *GCQ* (Isaacs, 1963a). Her themes expanded during this decade to include values issues, philosophy, and religion and how these fields of study supported the needs of the gifted and broadened definitions of giftedness to include athletics, music, art, and creativity. A series of interviews with successful gifted adults in a variety of fields supported this broadening definition (e.g., Isaacs, 1963c, 1966, 1967). Her writing style was persuasive, direct, and tended to continue to use a case study approach from which she would generalize to the "typical" needs of children with gifts and talents.

It seems apparent that her advocacy for gifted child education was directly focused on the children themselves, rather than directed at establishing a national recognition and agenda for appropriately differentiated education through the organization itself. Although there is no evidence one way or the other, one might infer that at this point Isaacs might not have been that anxious to see gifted education go entirely mainstream but might have liked being a national resource people sought out with questions and for advice. Perhaps she was beginning to recognize that the field was becoming too big and unwieldy for her to manage in the same way she had for 15 years. This lack of a "national vision" of gifted education may have been a pivotal catalyst for the events that followed in the 1970s, both federally (see the Sidney Marland chapter in this book) and personally for Ann. Even as late as 1970, Ann was still arguing poignantly about *not* working collaboratively with TAG to include the gifted child under the federal Education of the Handicapped label. In her testimony before the U.S. Office of Education in an Illinois hearing in November 1970, she stated,

> Every time I hear the gifted being called handicapped, I feel outraged. In the first place it is deceptive and dishonest. Educators who would play politics and call the gifted by any name merely to get money for their programs are a disgrace to the profession, or are not themselves gifted, or feel they aren't, so sympathize not with a loathing for this labeling. It must be admitted some who "buy" the term are possibly well intentioned and are merely going along the paths of their

> predecessors. Only rarely is a gifted person handicapped with a disability, or by being gifted…. The willingness of educators to link giftedness with the handicapped is living evidence of inadequate understanding of the gifted concept, as relating to an individual who can do more for society-not less. (Isaacs, 1970, p. 153)

Whether or not Ann was right, the ultimate effect was that when the Education of the Handicapped Bill was passed by Congress in 1975, the act did not include supporting children with gifts and talents financially. The garden needed to expand and to be redesigned, but the gardener did not have the needed tools and foresight for the task.

The 1970s started well and ended well for Isaacs, with a few roots dug up somewhere in the middle. The organization and the journal continued to grow in the early years of this decade. More and more researchers and leaders were attracted to the field of study, and the NAGC Board was filled with many individuals who may have enjoyed acquiring personal power and national recognition, in addition to serving the needs of gifted children and teachers of the gifted. Ann was the powerhouse behind the organization, but her inability to compromise, to share power with others, or to delegate work without continuing to exert her own control over it may have led to her demise (Vassar, 1998). This was, of course, Vassar's perspective which may have been correct, but Ann's correspondence to board members, used the greeting of “dearest” and ended with “fondly” in almost every letter!

Between 1970 and 1974 when she wrote her last article for *GCQ*, she published another 87 journal articles, 7 conference papers, an additional 3 chapters, and 1 book. The themes expanded in these years to include mythology, research on gifted biblical figures, and a series of practical articles on creativity as a form of giftedness. The case studies of successful gifted individuals continued with writers, athletes, and musicians, based on her extensive interview surveys with 78 highly successful and creative adults in a variety of fields (e.g., Isaacs, 1974b, 1974c). From 1970 to 1972, almost one-third of every issue (the last third) contained various articles, studies, editorials and musings by Ann herself. The most expansive theme had to do with mythology, with such provocative titles as “Eros, God of Love, What Gift Should the Gifted Strive Hardest to Learn How to Manage?” (Isaacs, 1972a) and “Creation, the Greek Gods and Giftedness”

(Isaacs, 1972b). Her focus on psychological health for gifted children continued, but the ideas tended to be repetitive of her thoughts in the previous two decades. Much less was written in the early 1970s, however, about how to teach these children, although much was written about who these children were and what their needs might be. Perhaps Isaacs, with her own plethora of interests, had moved on to things that might more thoroughly develop her own giftedness: philosophy, history, music, and art. Ann, who had always expressed herself artistically in a variety of media, took on painting, crafts, drawing, and sketching at an increasing rate. She also began to compose many musical selections at this time, starting with elegies for friends and acquaintances who died. These creative activities expanded in the early 1980s. Perhaps she felt she had said all she had to say on teacher issues or that her fellow board members, who were conducting research in these areas, were going to provide currency to the "how to teach them" concerns.

1974 was a critical year for Ann Fabe Isaacs, a year of ups and downs. The first issue of Volume 18 of the *GCQ* showed (perhaps ironically) a picture on its cover of a smiling, dark haired woman who looks intense yet reflective at the same time. The theme of *GCQ* that year was "Leaders in Gifted Education," with each leader having an issue devoted to him or her. Interestingly, only three of those four leaders (Isaacs, Torrance, and Terman) made it into this book, *A Century of Contributions to Gifted Education: Illuminating Lives*. Stanley Krippner, the fourth "leader," was not eligible for this book, as he continues to be alive and well! An issue of *GCQ* devoted to Ann could certainly be called an "up" for the year, but her down was also to occur that year, as the National Association for Gifted Children and the *Gifted Child Quarterly* editorship were wrested from her after 20 years of devoted effort in keeping them both thriving and surviving (Isaacs, 1974d).

By the time the organization was trying to oust Ann, NAGC had lost the opportunity to contribute to national policy, perhaps due to Ann's own vehement opposition to inclusion under the handicapped designation but also probably due to the board's recognition that there might be a different way to "grow" at this time and they no longer needed what they viewed as short-sighted thinking. Ann was trying, too, in these later years to be paid for her work as the organization became truly national. It is evident the Board did not want to spend their money that way. Their own expenses

were paid to the conventions, but they did not pay their executive director for her services. As publisher and editor of this journal, Ann quickly "retaliated" in the following issues outlining her issues with the Board. To some extent, she was using *GCQ* to air her personal grievances with those who desired to take NAGC in a new direction. In her "Open Letter to Readers of the *GCQ* " (1973), Ann wrote:

> Organizations, like people, have problems, which seem to come in bunches. For some time now we have had difficulty with accountants. Two of them "boo-booed" in keeping records for NAGC. Two others each indicated a willingness to help, then backed out. Another one died. The latest one keeps saying he is helping us, but we have not seen him physically-only verbally. In the meantime one arm of the Internal Revenue Service decided to review the financial histories of non-profit organizations, going back for six years. Simultaneously another of their department initiated a program, which called for a return from non-profit agencies. Accountants helping NAGC had indicated they filed any papers necessary. Though several IRS people told NAGC no return was needed, last Spring we were told we should file, so we did. The latest on this is that they claim it did not arrive, though mailed on two different occasions. Fortunately, there are carbon copies of the dated material sent to them. Meanwhile, the NAGC Board did not give the Executive Director the opportunity to reveal these difficulties. Instead, as a group they pounced on this worker. Please see the minutes of the meetings in earlier issues of this year's *Gifted Child Quarterly*. Though he had all the records, the accountant inaccurately stated records were not given to him. Never once was the Executive Director given the chance to respond. Thus, it can be seen this office has been surrounded by problems. Some of them have come from within the organization and some without. Now we have a new difficulty confronting us, which has also interfered with the work of this office. The incoming President who takes office after the 1974 annual meeting has been acting as if he were already in office. It is most difficult to keep a smooth operation going when coping with unusual difficulties, while trying to hold peace between members of this important organization. The latest is that the Board, which met unofficially (Constitution states meetings can be called by

> the President or the Executive Director which was not done in this case, only a date had been set) has asked the Executive Director to resign. This was done without official sanction of the Board, for a Proxy Vote was used. The constitution states important matters are to be determined by mail ballot if a quorum (majority) is not present, not Proxy. Robert's Rules of Order state proxy voting is permitted only when the Constitution makes no other provisions for voting. The idea of letting others take over the duties came at a time that was quite agreeable to the Executive Director. What prevented acquiescence on her part are the following factors: (1) It seemed an odd coincidence that there was such a request just at the time I asked for the back salary due. This is the kind of treatment organizations give gifted people typically-using them and then disregarding them, with little consideration for their feelings or past efforts; (2) fault finding with this office put greater demands on the Executive Director to do more and the work already done was a double-time week. Few offered to do anything to decrease the burdens of this office; (3) requests were made in disagreement with the by-laws. Thus, while they themselves were acting out of harmony with the constitution, they were also trying to get the Executive Director to act similarly; (4) their requests have been unrealistic. No one bothered to inquire about the exact nature of the present work done at NAGC headquarters, nor the time needed to carry out this work. Though this Executive Director has been willing to work not salaried, an earlier board voted a salary. Our present attorneys confirmed the money is due. My proposal was that money due should be put in a fund to be called the Ann F. Isaacs Fund and be used chiefly for needy gifted children. It was my thought that members of the board should each try to raise some of this money. Rather than do this, their thinking has been that the Executive Director should be fired. Fellow NAGC Members, please let us hear from you. What do you think? (Isaacs, 1973, p. 210)

The repercussions of this information made public were wide-ranging, from multiple letters sent to *GCQ* poignantly defending Ann's actions (e.g., Leininger, 1974), to a flurry of legal notices sent between the NAGC Board and Ann's legal advisors, to a final denouement for Ann in February 1974. Ann was summarily “discharged” by John Gowan on November 1, 1973

(Gowan, 1974), with instructions to turn over all assets and records to the board secretary by December 31. On the next day, Ann sent a letter reiterating the board's need to allocate the $125,000 she would have accrued through the end of her next term (1976) to the needy gifted child fund she had been advocating and urged the board to "match" this amount through additional fund-raising efforts, submitting an itemized list of 14 activities, including bake sales, marathons, and "figuring out new ways for yourself " (Isaacs, 1974e).

A formal agreement was reached with Ann in February 1974, about which Gowan wrote to the Executive Board of NAGC and subsequently in *GCQ*, stating that an "historic document, the 'St. Louis Document,'" was negotiated and was "a constructive compromise which will get this organization a 'new birth of freedom'" (Gowan, 1974, p. 1). Ann was allowed to retain all assets (back journals) through December 1974, was given a title of Executive Director Emeritus, was given free honorary registration to all future conventions, was granted a rebate of $15 per member she personally enrolled in the organization, and was considered "retired" from NAGC rather than discharged. In return, Ann promised not to pursue legal remedies, to transfer NAGC from her Cincinnati address and was promised that the Ann Isaacs Trust Fund for needy gifted children would be established and managed by the NAGC Board. It does not appear that the board, however, after Ann's departure, followed through on the establishment of this fund; her name was not actively referred to by NAGC again until the early 2000s when her husband offered $10,000 to establish the Ann Fabe Isaacs Founders' Memorial Award (S. T. Isaacs, 2001a).

In synthesizing Ann's leadership and advocacy up to this point midway through the 1970s, the question seems to be whether she was able to separate her personal life from her professional one: Did she view the NAGC and journal as her personal vehicle to communicate her own ideas of things despite the early promises of research dissemination? Did she end up having problems as more and more researchers joined the board and wished for the journal and the organization to cater to researchers and research rather than to school-based practices and parent advocacy? What were her motivations for working as a volunteer and how did those motivations change over the years? Perhaps there was the excitement in the very early years of getting the garden growing, of adding the nutrients of researchers and leaders to add color and sparkle to the field, but then as the

organization expanded, the bulk of the detailed follow-through, the paperwork, the planning of conventions and quarterly issues fell on her voluntary shoulders. These responsibilities were, perhaps, no longer a labor of love so much as a fear not to let the organization down. Ann may have begun NAGC to serve the children she feared would not make it, but over time she tended to pursue her own personal growth more and more and may not have seen the execution of board orders as allowing her to grow as an individual. She composed music, painted, drew cartoons, wrote poetry, and did many other things to continue her own personal growth, but she did not see the organization going in the direction she felt it needed to go. Perhaps there was some delay in the follow-through when she did not agree that a certain garden path be followed. Off she would go to act as a school consultant or a parent advisor or to perform her own compositions or exhibit her artwork in Ohio museums or galleries. NAGC may have come to look to her like a garden out of control-too many unwanted flowers and weeds-and no real sense of where the garden paths should be designed. Her response, then, was to fight to keep it the way it was or had become rather than to realize that it perhaps needed to grow in more fruitful directions.

The middle of the 1970s saw the NAGC garden redesign its plan as it removed its gardener from her roots. She was summarily discharged, with little grace, but was highlighted, ironically, in the first issue of *GCQ* that same year with her picture on the cover and was remembered somewhat fondly in a later editorial by Gowan (1975b). Uprooted by NAGC she may have been, but her gardening days for gifted education were not over yet!

Expanding the Garden

In the Summer 1974 issue of *GCQ*, an announcement for a new national organization was presented: “It's Happening with Creative Children and Adults,” described as a bonus for *GCQ* readers made itself known (A. F. Isaacs, 1974c). Ann had incorporated the National Association for Creative Children and Adults (NACCA), using her Cincinnati address as headquarters. Her announcement mentioned that this new organization had “its genesis with the old group” (A. F. Isaacs, 1974c, p. 106), but listed 22 goals, unlike the original five goals established by the Charter of NAGC in 1956. Ann established herself as Executive Director of this new organization with “It's Happening” as the triennial newsletter of the

organization. For the Fall 1974 issue of *GCQ* that year, Ann's editorial was all about the inherent creativity of those who are gifted, “If One Functions Giftedly-Creatively-Is It All Good?” As she perhaps set the rationale for her new “creativity” ventures, she questioned in this editorial whether the respected journals foster creativity (no, they don't, she said!), but her argument reiterated much of her message from the beginning years of *GCQ*: The field of creativity had become a step-sibling of gifted education and was not respected there or elsewhere in the world of education. By this issue of *GCQ*, the advertisements for the new organization she established were about the creation of a new journal, *Creative Child and Adult Quarterly* (*CCAQ*), with an editorial board including Stanley Krippner and Paul Torrance, who came with her from the NAGC Board of Directors. Torrance, as was his wont with *GCQ* (lead articles each issue from 1963 to 1974), wrote the lead article (first official volume of *CCAQ* was published in 1976) for each issue of *CCAQ* for the next several years.

New activities from this point were progressing under Ann's direction. She drafted Paul Torrance into developing a series of creativity workshops which could be offered nationally to be funded via a proposal to the National Institutes of Health mini-grant program. In an open letter published in *Gifted Child Quarterly* in February 1973, Torrance sent his regrets for not having a formal proposal ready for their upcoming meeting but described his vision of three-week workshops for gifted, disadvantaged children with an equal balance of creative expression and creative problem-solving activities. This work might have been the germ for the Future Problem Solving Program he ultimately developed a few years later (Raina, 2006). By year's end, Ann had written a book, *How to Teach Ourselves to be Good to One Another*, published by the NACCA, and based, she claimed, on her “lifetime of experiences and study in the helping professions' literature” (Isaacs, 1975, p.106). Perhaps this book represents her educational “take” on the dramatic circumstances that had occurred from her perspective over the course of the last year of her work with NAGC.

The new journal's first official volume was published in the summer of 1976. In analyzing appearance and content for this new journal, there appear to have been many more artistic illustrations to accompany the various articles, most of which were in Ann's own artistic style (Isaacs, 1974a), although she did not take credit for the illustrations themselves. Her

editorial in this first issue described her personal joy in doing spontaneous and creative acts, and she included an article under her new series for *CCAQ*: “How are Creative-Innovative Individuals Inspired? Interviews with Successfully Functioning, Living People in Art, Music, Science, or Writing.” The pianist, composer, and conductor, Lucas Foss, was her first interview in this series (Isaacs, 1976). The focus of this article was on the inspiration and hard work it takes to be creatively expressive and ultimately successful in one's lifework. The theme was followed over the course of the next few years of *CCAQ* with Isaacs' interviews with Dana Andrews, Stanley Krippner, Kitty Carlisle, Louise Nevelson, F. Lee Bailey, Bella Abzug, Joyce Brothers, and E. Paul Torrance, experts in the arts, politics, and law.

In 1978 through the venue of *CCAQ*, Ann proposed a new model for Gifted-Talented-Creative (GTC, as she called it). She posited a three-way developmental growth checklist that focuses on the origins of the creative individual's career track, life events that shaped his/her creative talent development, and how they went about their creative acts. The questions she posed were similar to those she did with the interviews she published in *GCQ* on successful gifted adults, but the interviewees' responses are more conversational and in-depth. Nothing more was made of the proposed checklist in ensuing issues, however.

In general as the years went by with *CCAQ*, Ann's contributions continued at approximately the same level as with *GCQ*, but much of what she wrote, even within her editorials, took on more depth. It was as if her years of experience had led her to generalize her perspectives beyond her own mindset. Her writing gradually showed more openness to outside perspectives and social context but did not seem to grow stronger in terms of using extant research in either the field of gifted education or creativity development. Ann continued to communicate a strong message for parents, for creative adults, and for teachers, to a lesser extent, in *CCAQ*. She still spoke from the heart, but her examples and arguments had become more multi-faceted and less singular in approach. Interestingly, Ann changed her signature for her *CCAQ* editorials to a bold black handwritten signature, unlike her small A.F.I. “signature” in the *GCQ* editorials. For Ann, too, giftedness was still an inherent part of this construct of creativity: She did not see creativity as a separate kind of giftedness but did relate success as adults to creative giftedness rather than to intellectual giftedness alone. The

term she used frequently in her writing for parents, teachers, and artists seems to have been gifted-talented-creative (GTC). In reflecting on her writing during this period, it seems she was continuing to provide lists of strategies, but the focus was more specifically on the development of creativity in the arts.

Isaacs stepped down from NACCA and *CCAQ* responsibilities, more gracefully this time, with her last issue of *CCAQ* being Volume 9 in 1984 (winter). Her editorial in this issue listed the rewards of being editor, including the ability to bestow honor on authors to be published, the power of a final decision-maker, an outlet for one's own view and publications, a press pass to be used at entertainment outlets, free books, the display of one's own handiwork in libraries, a tangible vehicle in which to express "verbal-visual-linguistic-artistic" talents, and "a means of leaving your mark in time," making an important contribution to society, and personal, local, national and international visibility. These are listed in an order that may represent Ann's ultimate ambitions from minor to major (Isaacs, 1984, pp. 7–8). These also may sum up the vision Ann had for her life's work and goals.

In this last issue under her editorial leadership, the new editor turned the tables on Ann and interviewed her (even if her first name was misspelled!) in the "How are Creative-Innovative Individuals Inspired?" series (Draper, 1984). Despite her list of the rewards of being in charge, Ann remained focused almost exclusively on her musical development in this interview with Draper. Ann listed nine "career hats" she had worn in her years: teacher, administrator, psychologist, artist, writer, composer, politician, editor, and lecturer. Not mentioned as a career hat, significantly, was Ann's lifelong drive to learn. Music came late into her realm of university training, when she was in her 50s, although she had composed and had attended musical events her entire adulthood. In all her striving to actualize, she was consistent in her need to contribute her gifts to the society in which she was situated. She came to perceive, she stated, that her musical compositions and performance were to be her final career hat in "wanting to help people." Indeed, many of her compositions were written to remember close friends or those she had respected during her many undertakings (e.g., *Holocaust Meditation Tribute* for violin and piano in remembrance of Silvano Arieti at his death in 1981 and *The Four Seasons* in honor of Paul Torrance's retirement), to illuminate her own religious and philosophical

beliefs (e.g., *Psalms, Remembrance, Ten Commandments*, *Songs of the Sabbath*), or to express her relationship to life and nature (e.g., *Bird Call Songs, Rainbow Sonata*). At the time of Draper's interview, Ann had completed more than 1,000 sketches, 36 oil paintings, 23 crewel works, 3 needlework works, 9 paper cut works, 200 religious compositions, 23 Songs of Consolation, and 24 preludes for piano, violin, viola, cello, or flute, in addition to the commemorative compositions listed previously (A. F. Isaacs, 2001b). No accounting of her actual illustrations and designs for the 18 years of *GCQ* issues was conducted, but one could estimate conservatively another 1,500 artistic contributions. In listening to her performances of several of her musical compositions, it was clear Isaacs was creative in her subject matter, fairly modernistic in her composition style, serious about seeing her pieces performed and even performing them herself, but a Mozart or Mahler she was not. Her works are pleasantly entertaining but do not make that transformational step toward opening up the musical ear or mindset in new directions. Nonetheless, listening to her performing her own works in her own home during regular at-home musicales indicates her serious drive to become a composer with a lasting legacy. When Draper asked her how she would like to be remembered, she stated: “As for how I would like to be remembered, I would like to be remembered as a sensitive-caring-responsive human, someone who perceived the problems of living beings and strived to alleviate and prevent them” (Draper, 1984, p. 47).

In one of her last editorials for *CCAQ* (Isaacs, 1984), Ann went back to her original method, which was to use her own experience as the “truth” of some precept. In this case, she focused on “finishing what we start,” as it related to her own cataloging of the hundreds of compositions she wrote over the years. She continued to write sporadically for *CCAQ* later in 1984 and 1985, but then it all seemed to stop, with a final book published through NACCA in 1989, *Creative Problem Solving for Everyday Life: An Odyssey in Common Sense and the Arts*.

In reflecting on the final 10 years of Ann Isaacs's professional life as leader and advocate, it seems permissible to assume that her themes in this second journal centering on the arts, athletics, business, design, and creative production mirrored her own life and creative development much more specifically than did her themes in the earlier 18 years of *Gifted Child Quarterly*. Her earlier themes, when applied to her own development, were primarily to help her understand her own gifts and where they should be

contributed to society as well as to understand her concern, perhaps, that she was not personally achieving at the level she expected to (and consequently was an underachiever). So much of what she wrote for *GCQ* dealt with how to counteract these issues and make the contributions one should as she perhaps worked this out for herself. In terms of Maslow's Developmental Stages, Ann had perhaps reached the final stage of self-actualization when she took on a second profession in organizational development and editorship with NACCA and *CCAQ*. The arts, as she came to understand them through her *CCAQ* interviews and editorials, became for her the final ladder to reach this stage.

Reflecting on the Gifted Education Landscape

To summarize the rationale for including Ann Isaacs in a book of nineteenth and twentieth century "illuminated minds" for the field of gifted education, it seems clear that she belongs in this pantheon. She may not have contributed most profoundly to the intellectual foundations of the field, but she did contribute to the heart and well-being of the field through her direct communications with schools, families, and the two national organizations she founded. Her philosophy about what was needed served both national organizations well for 28 consecutive years. She also was someone to whom the regular readers of the two journals she founded and managed could relate. Her messages were simple and direct, based on the "real world," something readers and audience participants could expect when they read to or listened to Ann Isaacs. She was the field's most vocal advocate through her books, journals, music, and art. She kept the field, without much political, societal, or economic support (or respect), from being erased from conscious awareness and conscience. She may have had her flaws and her personal ambitions, but she was consistent in her message about the development of giftedness, creativity, and talent. Fond as she was of lists (25 strategies for teaching gifted readers, 100 ways to raise self-esteem, etc.), it is hoped the following succinct list of her accomplishments would please her if she could see it today. The accomplishments are large for such a tiny but energetic woman.

1. She formed two national organizations to advocate for children and adults who are gifted, talented and/or creative. The major goals and

direction of both organizations still follow what she established, with very little change from their humble beginnings in her home office in Cincinnati, Ohio.

2. She spent multiple years as editor of two national journals (18 years with *GCQ* and 10 years on *CCAQ*)-at four editorials a year, she influenced our views of who these children are, what they need from family, what they need from the school system, and what they need to "turn out" in life.
3. She focused attention, particularly well, on the psychosocial issues that individuals with gifts face, either successfully or unsuccessfully through her authorship in many journals including the two she published and edited.
4. She exercised her powers of making a difference through organizational leadership and editorial leadership to her own satisfaction and yet managed to have an artistic life outside of her life's work in advocacy and writing.
5. She managed a very balanced life between her artistic expression, her healthy and happy family, her social outlets, and her "work." She had to have been a good manager of time and to have possessed great amounts of energy to accomplish all she did in her 80 years of living.

Throughout this chapter, the metaphor of the garden and its gardener has been used to described Ann Fabe Isaacs' life work and contributions to the field of gifted education. She was our landscape architect, the one who made our intellectual foundations "work" in real life. She created the paths that ordinary people could walk and enjoy as they developed their own or their children's or their students' giftedness, talent, and creativity. There were rocks along the way, but she was generally able to clear that path and maintain it when many other movements, schools of thought, and educational practices fell by the wayside. The fact that the first national funding for gifted education, the Jacob K. Javits Act, came three years after her retirement may seem paradoxical, given all the effort she expended over her lifetime. Nevertheless, her original thinking continues to align with the goals of the national organizations in this field, and that mindset will sustain the field, even as federal funding again has disappeared. Indeed, in the absence of national funding and statutory recognition, the garden of gifted education returns to its roots: passionate volunteer advocates.

Note

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21

MARY M. MEEKER

A Deep Commitment to Individual Differences (1921–2003)

Jane Piirto and Susan Keller-Mathers

Born in Clarksville, Texas, in 1921, Mary Meeker was the oldest of three children of half Acadian, one-fourth Lebanese, and one-fourth German descent (M. N. Meeker, unpublished survey, March 28, 2003). Mary's father, who reluctantly had to quit school in the fourth grade to run his father's general store, told his young daughter Mary that he was going to make sure she went to college as she was very smart. That year was 1925 and offered a glimpse of a bright, independent-minded girl who grew up to be a passionate advocate for the development of diverse intellectual abilities.

A series of early professional experiences laid the foundation for her interest in intellectual diversity while her doctoral studies provided the pivotal experience that paved the way for her scholarly work in the development of the intellect. As a mother, teacher, and psychologist, she immediately saw the possibility of applying J. P. Guilford's Structure of Intellect (SI) theory of human intelligence to school children (Guilford, 1967, 1977). She had

> witnessed all kinds of students from gifted to special diagnosis being failed by teachers who had no concept of diagnosing why intelligent children did not learn. Instead, they failed them. My mission was to protect the children and instruct the teachers. (M. N. Meeker, unpublished survey, April 26, 2003)

Mary Meeker's insights during her doctoral studies led to the development of her seminal 1969 book *The Structure of Intellect: Its Interpretations and Uses* and applications through her Structure of Intellect (SOI) Institute in California (1974–1991) and in Oregon (1991-present) with various satellites in the United States, Canada, Mexico, Germany, Singapore, and South Africa (SOI Systems background, n.d.).

The Spirit of an Early Scholar

Mary Meeker came from a family of five (M. N. Meeker, personal communication, April 29, 2003). Although she was named after the Virgin Mary, she refused her traditional Catholic religion when the nuns at her elementary school were cruel to her learning disabled sister, who had been born a *blue baby* (Maxwell, 2009). This was Meeker's first documented instance of empathy and care for those who had trouble learning. A spirited girl with a passion for writing, four-year-old Mary, book in hand on top of the kitchen table, exclaimed loudly that she was going to be a famous author someday. Her mother, who was often abusive to her children, whirled around and told her she would not grow up if she didn't get her dirty feet off the table (M. N. Meeker, 1990; M. N. Meeker, personal communication, April 29, 2003). Reflecting on her mother's life, Mary's daughter Valerie Maxwell (2004, p. 3), a practicing psychologist, stated that she was a courageous advocate for children and "paradoxically, it was because of her abuse that she was so zealously protective of the creatively gifted child."

Meeker (1990) described how her mother thwarted her creativity when she was a child and suppressed her creative urges. When Mary got a doll for Christmas instead of paints, she pushed the doll in its buggy into a ditch: "I wanted paints; I don't play dolls. I was crying. My heart was breaking" (M. N. Meeker, 1990, p. 4). When she was seven, a teacher chastised her for making original flowers of various colors instead of the prescribed red rose with green leaves. She lamented, "I weep inside that my art teacher could not see the budding love for colors and textures" (p. 5).

Mary's family moved often during her childhood. Each time her father had a new idea, he would start another business. Each new school would give her an achievement test and she eventually skipped one grade. She entered the University of Texas at age 15. Her first encounter with her

future profession was by chance. After realizing she did not have the prerequisites for journalism, she ended up majoring in psychology. She graduated with a degree in industrial psychology at age 19.

Family and Emerging Professional Opportunities

After her university studies, Mary and her new husband Norman Maxwell moved to California and had two children, Jessica and Valerie. Mary first worked for a Beverly Hills psychiatrist for a few years, increasingly taking on more complex cases even though she did not have any clinical training. When the Los Angeles Unified School District offered provisional certification to individuals with a related degree, Mary decided to apply. She was assigned to teach students with severe developmental delays but not knowing how was asked to be reassigned. She credited that experience as the "beginning of my interest in individual differences" (M. N. Meeker, personal communication, April 29, 2003).

Mary was assigned various positions from second to fourth grade to a special education class with students who didn't fit into any category. Her experiences in educating children enriched and expanded her thinking about how children learn. She explained how she "took that [special education] class over and I did everything but teach and we danced to music and we danced outside and we played sports" (M. N. Meeker, personal communication, April 29, 2003). These experiences led to her "persistence in understanding individual differences" (M. N. Meeker, personal communication, April 29, 2003).

When her children were three (Valerie, born 1952) and four (Jessica, born 1950), Mary divorced her husband. Mary continued to take graduate courses while teaching second grade.

> You want to talk about poverty and a single mother…. I can tell you exactly what it is like. You give up what you want to eat in order to feed your daughters and just in order to pay the rent. So I was kind of frazzled with everything going on in my whole life. (M. N. Meeker, personal communication, April 29, 2003)

A Lifelong Partner and a Career Focus Takes Shape

Besides being a psychologist in the schools, she also worked as a Human Factors Specialist at Systems Development Corporation (SDC). Through this work she achieved financial independence. SDC was also where she met her future husband (R. Meeker, personal communication, February 2, 2012). Robert Meeker was a human factors scientist with a background in ethics, philosophy, and math (R. Meeker, 2011). They married in 1959 and had one child, Heather, born that same year. She went on to become a lawyer in Silicon Valley, specializing in intellectual property and authored books on the topic (cf. H. Meeker, 2008). To add to his resume, Robert earned an Ed.D. in School Administration in 1973. Eventually, Robert and Mary both worked at the Rand Corporation and then transferred back to SDC in the computer division. Later, Robert was on staff at UCLA, as director of the computer lab of the psychology department and evaluator for medical and sociological research projects.

Mary earned three graduate degrees from the University of Southern California—a Master of Science, a Master of Education, and a Doctor of Education. It was at USC that she had the opportunity to study with J. P. Guilford. Guilford said her mind worked like no other student he had ever encountered, once describing her as a maverick to a colleague. Mary was one of only three women to study with Guilford. She explained to him that she was an applied psychologist and, therefore, focused on applying the SI model when no one else was (M. N. Meeker, personal interview, April 29, 2003). She completed her Ed.D. in 1966, with a dissertation titled "Immediate Memory And Its Correlates With School Achievement." Her chair, C. E. Meyers, was known for his research on Structure of Intellect factors and special education.

Mary recognized the potential to use the SI model as an assessment tool in educational settings, stating, "When I met the Structure of Intellect, I understood it immediately" (M. N. Meeker, personal communication, April 29, 2003). In her early work with the SI model, Mary did not intend to write a book. Dissatisfied with the assessment commonly used, the Stanford-Binet, she designed templates to translate scores from that assessment to Structure of Intellect cells. According to Meeker, "Education is the only profession that never diagnoses its problems. They think that if they get an achievement score that that is the diagnosis" (M. N. Meeker, personal communication, April 29, 2003). She called her work on the theory, the SOI, to contrast it with Guilford's SI. The book, *The Structure of Intellect:*

Its Interpretations and Applications (1969), was a milestone in school-related assessment and broke new ground. In relation to mainstream psychology, she described herself as "so far afield it is not an easy place to be" (M. N. Meeker, personal communication, April 29, 2003), as the bell curve was something psychologists were not willing to give up. She stated, "It takes different intellectual abilities to do different things and the notion that with all the different abilities that you could put a three digit number on intelligence is to me insane" (M. N. Meeker, personal communication, April 29, 2003).

After receiving her doctorate, Mary took a position at California State University, Northridge, and developed the school psychology program while achieving the rank of full professor. In 1974, she and her husband Robert founded the SOI institute in El Segundo, California, and eventually moved it to Oregon in 1992, when they retired from their academic positions (Meeker & Meeker, 1986; "Mary Meeker," 2003; "Mary Meeker, 82," 2003). It was renamed SOI Systems and went from being a non-profit corporation to a for-profit corporation in 1992.

Over the course of her career, she published scholarly articles and books, and continued to write hundreds of SOI training exercises in the SOI modules as well as poetry, short stories, children's books, and creative nonfiction about watercolor painting that she took up in her 70s ("Dr. Mary Meeker," 2003; "In memoriam," 2003; "Mary Meeker," 2003; "Mary Meeker, 82," 2003). She described herself as someone with "immense concentration," "indomitable energy," and "the ability to focus and pay attention" to what came to her mind (S. Keller-Mathers, personal communication, April 2003).

The Work

Mary often wondered what types of interventions or curriculum were presented after testing was completed. She believed that intellect could be nurtured and developed with proper diagnosis and targeted instruction and that intelligence was not fixed but malleable.

TABLE 21.1 Guilford's Original Delineation of The Structure of the Intellect (SI)

Operations	*Contents*	*Products*
Cognition (C)	Figural (F)	Units (U)

	Figural auditory	
	Figural Visual	
Memory (M)	Symbolic (S)	Classes (C)
Convergent Production (N)	Semantic (M)	Systems (S)
Divergent Production (D)	Behavioral (B)	Relations (R)
Evaluation (E)		Transformations (T)
		Implications (I)

In her 1969 book, Meeker explicated her developing model, calling it the SOI model (Structure Of Intellect), after Guilford's SI model (Structure-of-Intellect). Guilford asserted that there were many facets of intelligence, which revealed the limitations of one or even two scores that were obtained from traditional intelligence tests. Using factor analysis, Guildford broke down the intelligence quotient (IQ) into various abilities required to perform certain vocational tasks (e.g., the Aptitudes Research Project) and identified 120 discrete types of intelligence factored across five Operations (see Table 21.1).

Guilford factored these into 120 types of intelligence (5 Operations x 4 Contents x 6 Products = 120 types of intelligence) and constructed separate tests for each of them in order to demonstrate that they were, indeed, separate facets. After many years of experimentation and theorizing, he collected these into his classic 1967 book, *The Nature of Human Intelligence*, published just two years before Meeker's (1969) explanation of his theory. Guilford's legacy is mixed, and Carroll in his seminal analysis of factor analysis in cognition called Guilford's theory “idiosyncratic” (Carroll, 1993, p. 34). Meeker subsequently took 26 of Guilford's 120 tests, deemed most related to school learning, and created the SOI Learning Abilities test (SOI-LA) (see Table 21.2).

The Test and Its Properties

The theory purports that intelligence is not fixed and is not general (*g* - factor), but it is malleable and differentiated. No intelligence quotient is derived (although an index can be made to rank class members), and norms are based on grade-level comparisons. Based on the results of the SOI-LA, strengths and weaknesses are identified and addressed in order to minimize

disabling areas and to maximize robust areas (M. N. Meeker, 1985; Meeker & Meeker, 1979, 1985).

TABLE 21.2 Factor Definitions for the SOI-LA Test from the Parent Conference Form

	COGNITION
CFU	Ability to identify objects by name, visually and auditorially
CFC	Classifies perceived objects
CFS	Perceives spatial patterns and maintains orientation
CFT	Manipulates or transforms objects into another visual arrangement
CSR	Discovers relations involving letter patterns
CSS	Ability to discover complex relationships in systems involving symbols
CMU	Vocabulary
CMR	Discovers relations in conceptual, abstract meanings
CMS	Ability to comprehend or structure problems in preparation for solving them
	MEMORY
MFU	Recalls materials learned by visual and auditory presentation
MSU	Recalls for immediate production, after one presentation, a series of numerals or letters
MSI	Memory for well-practiced number operations
	EVALUATION
EFU	Ability to identify identical forms
EFC	Ability to analyze how units are classified
ESC	Ability to judge the appropriate class in which to place numbers, letters, or signs
ESS	Ability to estimate appropriateness of aspects of a symbolic system
	CONVERGENT PRODUCTION
NFU	Ability to comprehend and reproduce an observed bit of behavior
NSS	States the order of symbolic systems from start to goal
NST	Ability to produce new symbolic information by revising letters
NSI	Substitutes or derives symbols
	DIVERGENT PRODUCTION
DFU	Ability to draw figures conforming to simple specifications
DSR	Generates a variety of relations between numbers or letters
DMU	Ability to write a story about a drawing

Most people possess strengths and weaknesses in different areas, and that was seen as the advantage of using SOI assessment with students. Often

students are grouped, or tracked, with no regard for their intra-individual differences. In any given class, a few students may be called *gifted*, but often there is no indication of what type of giftedness the student exhibits, and learning activities may be inappropriate because (a) the student already has the ability being taught and does not need more instruction, (b) the student cannot perform the task because of a lack of background, or (c) the mode of the activity—figural, symbolic, semantic-may not suit the child's learning preference.

Of the 26 subtests, 9 are Figural, 13 are Symbolic, and only 5 are Semantic. This itself makes the SOI-LA test different from most abilities tests, which are typically semantically (verbally) loaded, favoring those who are good with words. The test was normed on approximately 800 elementary students in four states; however, the sample was not analyzed according to gender or ethnicity.

Despite the lack of norming by ethnicity, the instrument promised to be a culture-fair assessment and was attractive to gifted educators. Meeker was adamant that a greater number of gifted students existed beyond the top 2% identified by the commonly used Stanford-Binet Intelligence Scale (S-B) or the Wechsler Intelligence Scale for Children (WISC). By the mid-1970s, Meeker was traveling the country, speaking to groups of teachers and coordinators interested in differentiating curriculum for the gifted, based on the SOI-LA results and subsequent diagnosis of learning strengths and weaknesses.

SOI and Its Use in Gifted Education

The use of the SOI-LA assessment by the gifted education community waned in the late 1980s. Perhaps it was because of the challenges posed to the reliability and validity of the instrument indicated by Buros reviewers and researchers (Clarizio & Mehrens, 1985; Coffman, 1985; Cummings, 1992; Leton, 1985; Newman, 1989; O'tuel, Ward, & Rawl, 1983). Meeker, Meeker, and Roid (1985) argued that these commentaries were unjustly harsh, but the reviewers asserted they were just applying the testing standards of the American Psychological Association and the American Educational Research Association (Standards for Educational and Psychological Testing, 1985). Another reason may have been the intellectual challenge and the time-intensiveness required to understand the

theory, to do the testing, to create the diagnosis, and to apply the remediation.

Anecdotally, the first author, when she administered the test to students with high Stanford-Binet IQs, found that the test battery had an unforeseen ceiling effect; that is, it was impossible to diagnose and remediate skills for students with high IQs when they got all the items right for their age levels. When I asked the teachers at the Hunter College Elementary School to recommend their students having learning problems and after I administered the full SOI-LA to them and got the test scored and learning packets ordered from the SOI Institute, the results turned out that "all these children are gifted and need no remediation." This was disputed by their classroom teachers, who knew that even the highest IQ students had processing weaknesses. This experience led to my own declining to do further workshops or attend further conferences, though it did not affect our friendship and annual Christmas communications. However, my experience was not replicated by others who used the assessments.

For example, Maker (1982) listed several advantages to using the SOI-LA. This included diagnosing gifted students who were having problems learning, individualizing learning with the assessment, and understanding the multidimensionality of giftedness. She also noted several disadvantages: that the assessment might lead to a "cookbook approach when specific cells are targeted and workbooks are keyed to those cells" (p. 132) and echoed issues regarding validity and reliability. She questioned the methodology of both Guilford and the Meekers, stating, "many … questions need to be addressed by solid research to determine the validity and reliability of the model for curriculum development" (Maker, 1982, p. 132). Of course, lack of validity research is an ongoing problem for many curriculum models.

Several federal grants funded by the Jacob K. Javits Gifted and Talented Students Education Act used the SOI assessments. One of the most comprehensive was Project Step-Up, a project for identifying and serving disadvantaged youth conducted in Texas, Florida, Arizona, and Arkansas. Project investigators included experts in the field of gifted education: Dorothy Sisk, C. June Maker, and Roberta Braverman Daniels. Potential students were first identified by the SOI Learning Abilities Test. Sisk said, "The SOI was chosen because it does not represent a traditional intelligence test, and involves students in a broad spectrum testing experience" (Sisk, 1993, p. 5). The Project, conducted in the early 1990s, eventually involved

14 sites of second grade students who were economically challenged. Project Step-Up Director Sisk said of the assessments, and of Meeker,

> We found it [the use of the SOI in gifted education] very helpful since our kids were high potential minority low-income students with low pre-test scores. The SOI tests also clued the teachers in to areas they needed to concentrate upon and build lessons and activities for remediation … my dear friend and colleague, Mary … came to Texas and trained the entire group of teachers of gifted students in Beaumont and trained the Beaumont Supervisor of Gifted and me as "trainers." Mary believed and said if we could define giftedness, we could teach and develop giftedness. We used the SOI in all of our sites in Step-Up and another project that used the SOI for the entire district was Paris ISD in Paris, Texas. (D. Sisk, personal communication, January 4, 2012)

Other projects that employed the instrument to be used with potentially gifted students included (a) a project in the Lompoc, California school district in 1963; (b) a Title III, ESEA project in 1965 in Canada to identify figural intelligence in First Nations (Meeker & Meeker, 1986); and (c) in 1985 a project in New York City concerning alternative assessment for gifted identification. SOI Systems continues to advocate that their assessments and diagnoses will help the *near gifted* to become identified as gifted, through remediation of certain of the 26 abilities, and they advertise curriculum materials for homeschooling students. SOI Systems website states, "With the SOI approach the near-gifted have a clear means of becoming gifted if they want to develop their near-gifted abilities to the gifted level" (SOI Systems Gifted Program, 2010, para. 3).

By the early 1990s, the SOI-LA assessments were increasingly used by special educators and educational therapists in helping students with learning disabilities, including twice-exceptional students; and by developmental optometrists for eye movement diagnosis and remediation. The Meekers also provided diagnostic workshops in several countries, especially for potential engineers. They also worked with adults in prisons and veteran's centers. The SOI Institute in Vida, Oregon, continues to provide assessment and diagnosis in special education, sometimes including gifted education. Their mission statement reflects the change from an

emphasis on gifted assessment to an emphasis on assessment to help learning problems:

> SOI Systems is dedicated to nurturing the appreciation of multi-faceted intelligence, and to the creation of the most effective and practical means for the assessment and treatment of learning problems. (SOI Systems, n.d., para. 1)

Advocacy Efforts

Her work adapting the Structure of Intellect as an assessment and remediation tool for students was, she said, "a major contribution that has not been truly accepted. It may not ever be" (M. N. Meeker, personal communication, April 29, 2003). Toward the end of her life, she became interested in the emerging brain function research and felt it reaffirmed her work. Her daughter Valerie, a practicing psychologist who works with SOI, has carried on the diagnostic/prescriptive work of her mother (cf. Maxwell, 1989). She explained, "Mary believed and proved that we can train intelligence and creativity" (Maxwell, 2004).

Many recognized her contributions. When Mary received her doctorate, J. P. Guilford sent her a box and gave her his blessing and copyright for "all of the tests that did not factor as well as all those that did" (M. N. Meeker, personal communication, April 29, 2003). In 1970, Mary was appointed editor of the state of California gifted framework and curriculum guides (Meeker & Gowan, 1970). Selected by the U.S. Department of Education in 1975, she was one of the five social scientists whose work held promise for education for the next century. She was a consultant for 33 state departments of education and named Education Leader of the Year in 1981 by the American Psychological Association of which she was a member (M. N. Meeker, n.d.).

Meeker was elected and re-elected for 15 years to the Board of Directors of the National Association for Gifted Children (NAGC). A microfiche search of the pre-matter in the *Gifted Child Quarterly* from 1975 to 1993 indicated that her first term on what was then called the Executive Board began in 1977, when she was elected along with Lynne Fox, Frank Williams, Donald Treffinger, Irving Sato, and Kay Coffee (*Gifted Child Quarterly*, 1975–1993). She served as secretary of the organization for one

term, in 1984–1985, and was also awarded the Distinguished Service Award in 1989. She noted, “They keep re-electing me,” (M. N. Meeker, personal communication, ca. 1987). Even after Meeker's passing, her legacy continued. In 2004, she was posthumously awarded the E. Paul Torrance Award from the Creativity Network of the National Association of Gifted Children (NAGC, n.d.).

Reflecting on her life, Robert Meeker stated, “She has saved or substantially enhanced thousands of lives through her counseling and the body of her work. That is her legacy” (R. Meeker, 2003). He summed up his memorial to her in the SOI newsletter in this way:

> Courage and integrity were the hallmarks of her professional life.
>
> Understanding and compassion were the hallmarks of her interpersonal life.
>
> Love, encouragement, and guidance were the hallmarks of her family life.
>
> She lived a remarkable life. It is my privilege to have shared it. (R. Meeker, 2003)

Her daughter Jessica, in a spiritual memoir, *Roll Around Heaven*, described her mother as a sensitive, spiritual being with the ability to read people and environments with great and sometimes eerie accuracy (Maxwell, 2009). This aspect of Meeker's personality was known by colleagues and friends as well. Several months before her passing, Mary reflected on her hope for the future. She noted,

> What I would like to see is that no teacher gets out with a degree unless that teacher can diagnose a child's intellectual abilities, physical abilities, emotional abilities, and there are materials for this so that the teachers become diagnostic and then in so doing the child doesn't fail because he does not receive the right treatment. (M. N. Meeker, personal communication, April 29, 2003)

Meeker's Legacy

Meeker's long-lasting and vital impact was in her tireless advocacy for alternative identification methods and in her insistence on going beyond the

IQ to understand intelligence. She was a pioneer in emphasizing the diversity of students, and in advocating for an appreciation and respect for that diversity. Her development of an alternative assessment and in actually producing a workable and applicable assessment was innovative. Following her lead, the field of gifted and talented education continues to seek such alternatives because of the social implications of having fewer economically poor students being identified for gifted and talented services when the traditional IQ tests and achievement tests are used. Though other theorists (e.g. Gagné, 1991; Gardner, 1983; Piirto, 1994; Renzulli, 1978; Sternberg, 1985; Subotnik, Olszewski-Kubilius, ' Worrell, 2011) have since proposed alternative intelligence theories and models, Mary Meeker was among the pioneers along with others in this volume. She not only spoke about equity; she lived it.

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22

SIDNEY P. MARLAND, JR.

The Commissioner (1914–1992)

Jennifer L. Jolly and Michael S. Matthews

The town of Killingly, which consists of the borough of Danielson and several surrounding villages, is located in the northeast corner of Connecticut. Although the town was founded nearly three centuries ago, beginning in 1835 with the birth of Dr. William Torrey Harris in North Killingly, this area of Connecticut has possessed a curious connection to American educational leaders and to the field of gifted education. As superintendent of St. Louis Public Schools, Dr. Harris established some of the first systematic programming for gifted children and also the first permanent kindergarten in America. In 1889, Harris was appointed U.S. Commissioner of Education. Originally appointed by President Benjamin Harrison, his term lasted for 17 years under three additional presidential administrations with the last being President Theodore Roosevelt (Coolidge, 1997). Approximately 30 miles to the west is the University of Connecticut, which has housed the National Research Center on the Gifted and Talented (NRC/GT) since 1990.

This area of Connecticut was also the birthplace of Sidney Marland Jr., who served as U.S. Commissioner of Education from 1970 to 1972 and then as the very first Assistant Secretary of Health, Education, and Welfare from 1972 to 1973. During his tenure as Commissioner of Education, Marland was the architect of the first federal recognition of the unique learning needs of gifted children, known as the Marland Report. Despite the widespread citation of the Marland Report, the report's namesake is seldom recognized in the literature, either as an author or as an important political and historical figure.

Although the field of gifted education already had been developing for nearly half a century at the time of the publication of the Marland Report in 1972, this document was the first to provide a sense of legitimacy to gifted students at the federal level. Additionally, since the 1950s the Federal Government had begun to assume a greater role in the education of children in the United States; public education heretofore had followed a mostly state-directed model since its inception.

U.S. Senator Jacob K. Javits (R-NY) authored the law that provided the impetus for the Marland Report. Marland's office was charged with determining which special education programs were valuable for gifted children, identifying the already-existing federal educational programs in use to meet the needs of gifted children, evaluating how these existing programs could have additional impact, and recommending further programming (P. L. 91â230).

The Marland Report also provided a point of reference to determine the progress being made on behalf of gifted children. Forty years since the report's first publication and distribution, its findings of “inadequate provisions for these students and widespread misunderstanding about their needs” (Marland, 1972a, p. xi) remain relatively unchanged.

Early Life

Who was the man behind the report, and what stake did he have in promoting the country's most able students? To understand the person and his contributions, we must travel back to northeast Connecticut.

Marland's parents, Sidney P. and Ruth Johnson Marland, lived in Danielson, Connecticut, where the senior Marland made his living managing a clothing store. He also served as member of the National Guard for a number of years (“Major Sidney P. Marland,” 1943). They had three sons, with the eldest being Sidney P. Marland Jr., who was born in 1914. Entering university in 1932 at the height of the Great Depression, Marland Jr. enrolled at the University of Connecticut, only 15 miles from his hometown. He majored in English, joined the Reserve Officer Training Corps (ROTC), and played in its band, serving as drum major. In 1935 he was instrumental in creating the school's volunteer band, which allowed for a greater number of students to participate and represent the entire student body rather than just the ROTC. Marland was named bandleader of this

newly formed entity. This college band played at home and away football and basketball games (UConn Marching Band, n.d.).

In 1938 Marland obtained a teaching position at William Hall High School in West Hartford, Connecticut. It was here that he met his wife Virginia, marrying in 1940. He taught English until 1941 while also serving as a captain in the U.S. Army Officers' Reserve Corps in Hartford, Connecticut, from 1937 to 1941. In February 1941 he entered the United States Army and in 1942 was shipped to the South Pacific to serve in World War II. He would be away until 1945 (S. P. Marland III, personal communication, June 4, 2009). While serving in the Army's 43rd Infantry Division, he was awarded the Distinguished Service Cross, the Bronze Star, and the Legion of Merit. He rose to the rank of infantry colonel (Daniels, 1992; College Board, 1978). His receiving the Distinguished Service Cross for extraordinary heroism on August 3 and August 5, 1943, while fighting with the 43rd Infantry Division was chronicled in a local paper, which stated,

> Major Sidney P. Marland, observing that the [U.S.] tanks supposed to lead the infantry in to the Jap pocket, were swinging in the wrong direction, and by their fire endangering the lives of our own troops, dashed to intercept the course of the tanks in full view of the remaining Jap pocket, heedless of the danger of the machine gun fire ….He succeeded in stopping the last of the tanks by stepping directly in front of it and waving and caused the driver to contact the driver of the leading tank by radio. (Major Sidney Marland, 1943)

Marland remained in military service until October 1949 as Chief of Staff of the 43rd Infantry Division, Connecticut National Guard (Marland, 1971).

Superintendent of Schools

Darien, Connecticut, Schools

After being discharged from the Army, Marland, at only 34-years-old, was appointed superintendent of the Darien, Connecticut, schools in 1948. Darien, which lies just over 100 miles from Marland's hometown and within an hour's drive from New York City, was known as a bedroom

community where big city executives lived and commuted to their jobs in New York City and other large urban centers in the region. Marland's tenure as superintendent coincided with the town's growth after World War II and the construction of the Connecticut Turnpike, creating greater access to these metropolitan centers. From all accounts Marland's years (1948–1956) in Darien were successful, and upon departure for his next position as superintendent of the Winnetka, Illinois schools, a farewell song was composed set to the tune of Yankee Doodle.

When Sidney Marland came to town
Arriving with his family
The whole school board did gather ’bout
To welcome their new dandy

Darien is out of luck
Darien knows why
They have lost Sid Marland
And all the children cry.

You went to work right off the bat
And organized our schooling
You raised the teachers' salaries
They found you were not fooling

Darien is out of luck
And now know why
You're a man of action
And a very special guy.

And now you've been with us three years
My how the time does fly
We feel you fit this village perfectly
And we will tell you why

You have such a charming wife
And your children three

Skilled at golf and fishing
As well as pedagogy.

Darien is out of luck
And we now know why
You're a man of action
And a very special guy!

—(1956, Box 2, Hoover Institution Archives)

Clearly he and his family would be missed. Winnetka, Illinois, mirrored Darien, Connecticut, as a moneyed suburb outside a major metropolitan city, just on an ever-so-slightly larger scale. Winnetka lies just 16 miles from down-town Chicago; it was and remains one of the wealthiest suburbs in the United States.

Not long after his arrival in 1956, Marland gave a sermon on Laymen's Sunday at the Winnetka Congregational Church, titled “The Truth Shall Make You Free.” In this sermon, he spoke of the “three principle forces” that influence human personality. He identified these forces as church, home, and school. The sermon recounted Marland's high regard for his faith, for teachers, and for the foundations laid down by the Founding Fathers in relation to the separation of church and state. He believed that “the school is the place where teacher and student learn by pursuing truth wherever it may lead” (Marland, 1956). He emphasized that, “Men and women do not, by and large, become teachers at all unless to begin with they are motivated by a very real desire to serve others quite in consistency with Christian ideals. A man's religion is a part of him—and it is a very special part of a teacher” (Marland, 1956). Marland felt that the line between Christian ideals and the separation between church and state including church and schools was a fine line and “that teachers, for all the legal and theological confusion that surrounds them, are not without God” (Marland, 1956).

Winnetka, Illinois Schools

When Sidney Marland arrived in Winnetka, he was stepping into a town that was the site of American educational history. Carlton Washburne had run Winnetka Schools for nearly a quarter century, from 1919 to 1943, and

his philosophy of education remained imprinted on the schools nearly a decade and a half later. A handful of superintendents served between Washburne and Marland, but they retired in quick succession. Residents of Winnetka had mixed feelings regarding the extension of the Winnetka Plan and the Washburne legacy. Washburne never intended for there to be a plan but rather a "state of mind" from which education was conducted (Washburn & Marland, 1963, p. 208). Nevertheless, the Plan focused on individualized instruction using pre-tests to plan instruction. Teacher facilitated projects also encouraged student creativity and a greater emphasis on correcting student behavior issues through counseling rather than using punishment (Washburn & Marland, 1963).

Marland, in trying to carve out an identity of his own, was careful not to offend either group, went to meet with Washburn not long after his arrival in Winnetka, and "an increasing friendship ensued" (Washburn & Marland, 1963, p. 165) resulting in *Winnetka: The History and Significance of an Educational Experiment* (1963) authored by the two men.

Winnetka schools were aware of the academic needs of gifted children and employed several strategies to meet these needs. These included acceleration, enrichment, and grouping (Marland, 1959). Students' cumulative folders were tagged in order for successive teachers to be responsive to their advanced learning needs. Marland also wrote about the librarians' beneficial role in collaboration with the classroom teacher, to provide enrichment materials (Jolly, 2009b).

During his time in Winnetka, Marland also overhauled the curriculum, brought a greater community presence into the schools as advisors, and developed teacher salary incentives (*Newsweek*, 1970). Carving out his own agenda, he gained the trust and respect from the people of Winnetka, who bid Marland farewell in 1963 for the superintendency of Pittsburgh with a poem.

> Let's both go fishin'
> Said Sid to his wife,
> We'll bring back some big ones
> without any strife.
>
> So they packed up their gear
> Out the door they flew

With fishin’ rod and tackle
All brand new.

They settled for the evening
One-nice and cosy
Oh for another sleeping bag
To make things really rosy!

Now don't be discouraged
And don't be dismayed
We heard of your plight
And plans carefully laid.

We took up a collection
And this is what we got
So when it's time for sleepin’
You'll both be “all sot.”

We wish you godspeed
In all that you do
However, we shall miss you.
As you bid us adieu.

When Pittsburgh gets crowded
And the going gets rough
Just pull out the sleeping bags
And to hell with that stuff!

—(1963, Box 2, Hoover Institution Archives)

Pittsburgh, Pennsylvania

From Winnetka, Marland was tapped to become the next superintendent of Pittsburgh, Pennsylvania, schools in 1963. Pittsburgh was quite different in size and demography compared to his earlier “vest-pocket operations” (“The Pittsburgh Philosophy,” 1966, para. 3). Pittsburgh was an urban center with a population that was diverse not only ethnically but also

socioeconomically. Beginning in 1945, Pittsburgh had experienced a shift along racial lines not unlike other large urban centers such as Chicago, Philadelphia, and New York City. By 1965, at the mid-point of Marland's term as superintendent of schools, African Americans represented 36.7% of the student population as compared to 18.8% in 1945. African American families lived predominantly in the Hill and Homewood-Bushton neighborhoods, and schools in these areas had become increasingly segregated as White families moved out of Pittsburgh or enrolled their children in private or parochial schools. The Board of Education noted, " To improve integration appears to carry the seed of its own destruction if further 'flight to the suburbs' by white families follows" (Board of Public Education, 1965, p. 12). From 1955 to 1965, the number of predominantly African American schools (i.e., 80% or more African American enrollment) doubled from 9 to 19.

Marland and the Pittsburgh School Board were sensitive to the racial imbalance and to the fact that the average academic performance of African American children was lower than the average performance of White children. The Board also found that "[the board] must contemplate every move it makes toward integration with the utmost concern lest it defeat its very purposes by encouraging resegregation" (1965, p. 13). Pittsburgh established a number of innovative and cuttingedge programs for the time period. These included Pittsburgh Scholars, which "arranges for the very able child, who may be the only one in [sic] his class, to join other very able children in an accelerated curriculum" (Board of Education, 1965, p. 16).

Other measures promoted by Marland in Pittsburgh schools included attracting qualified African American teachers, increasing teacher quality overall, constructing new schools, adjusting school attendance zones, removing racially objectionable books, changing curriculum to reflect a racially integrated society, instituting programs geared for post-secondary attendance, and developing programs for preschoolers (Board of Education, 1965).

Pittsburgh's pre-primary education program was particularly progressive for the time. Marland and the Pittsburgh School Board hoped "to find the secret for interrupting the very low achievement of the child in the deprived neighborhood" (Board of Education, 1965, p. 33). Beginning in a space borrowed from two local churches (Board of Education, 1965), the program not only operated during the traditional school year but also during the

month of July. This program would eventually bring national recognition, which Marland remarked, “likely did call attention to Pittsburgh and therefore to me” (Marland, 1972b).

Marland was proud of the innovative practices that were established in Pittsburgh: “…we felt that it was worth a try to reach the disadvantaged child earlier than others, at age three. Of course this was to some people heresy; the child wasn't ready for any kind of systematic exposure to learning …” (Marland, 1972b). One of the other unique features of the Pittsburgh model was the use of paraprofessionals who were high school graduates and who were recruited from the same neighborhoods as the preschool children. Paraprofessionals were offered coursework in early childhood education at Carnegie Mellon University. The pre-primary program was aimed at school readiness in a safe environment where the child's health, nutrition, and family (particularly that of the mother) were attended to (Jolly, 2009b). Marland noted that Pittsburgh schools were not the only schools to offer this type of early childhood education, but “were part of that early wave” (Marland, 1972b). During this same time period, the White House appointed Marland to serve on the Presidential Advisory Council for the Office of Economic Opportunity (OEO). Marland's conversations with OEO Director, Sargent Shriver, led the OEO to establish a similar pre-primary program, “Operation Headstart.”

Public Service

Pittsburgh elevated Marland to a level of exposure that he had not received in Darien or Winnetka—a national presence in the dialogue regarding urban issues. Marland believed that

> [When I] went to Pittsburgh I happened to be at the right place at the right time. This was a large city with typical problems of big city education … This was in the early days of confronting the big issues of inner city Pittsburgh that they were shooting for rather than me, because it was a big city but still small enough to be responsive and manageable. (Marland, 1972b)

Marland's tenure with the OEO Advisory Council launched his career in Washington and would eventually make Marland in a sense the

superintendent of every school in the United States with his appointment as Commissioner of Education and finally as Assistant Secretary for Education in the Department of Health, Education, and Welfare (HEW).

In the interim, between his departure from Pittsburgh Public Schools and his appointment as Commissioner of Education, Marland served as president of the Institute for Educational Development, which prepared and managed school innovation programs nationally. President Nixon nominated Marland to be U.S. Commissioner of Education in 1970. *Newsweek* forecast "a bitter confirmation fight in the Senate" for Marland (1970, p. 67). The Office of Education was nearly 100 years old in the early 1960s, and until the late 1950s the position of Commissioner of Education was considered a rather innocuous post in the Federal Government. Traditionally, the main purpose of the office had been to gather statistical data regarding education. With passage of the National Defense Education Act in 1958 and the Elementary and Secondary Education Act in 1965, the Federal Government assumed an ever-increasing role in the education of all American students (Jolly, 2009a). This amplified interest also meant that the Commissioner of Education now played a far more influential and political role.

As President Nixon's nominee, Marland was to face the scrutiny of legislators, politicians, teacher unions, and educators. Marland's record during his 21 years as a school district superintendent caused some consternation, especially because of his views on teacher unions and on school integration. He expressed that contractual obligations to teachers often came at the expense of programming needs (National School Public Relations Association, 1970). However, what was not in question was his "mythical … devotion to the cause of education" (*Newsweek*, 1970, p. 67).

Several projects that Marland had piloted and implemented in Pittsburgh weaved their way into the national landscape of new federal initiatives and programs. As previously mentioned, Head Start was modeled after several pre-primary programs including the one in Pittsburgh. Another was the Upward Bound program, originally conceived in collaboration with Carnegie-Mellon University and Pittsburgh schools during Marland's tenure. The pilot program served 30 students who exhibited potential but did not have consistent academic records. The pilot coincided with Marland's time on the OEO, and soon Upward Bound became an OEO

program. Upward Bound is still in existence today and is operated out of the U.S. Department of Education, providing

> opportunities for participants to succeed in their precollege performance and ultimately in their higher education pursuits. Upward Bound serves: high school students from low-income families; and high school students from families in which neither parent holds a bachelor's degree. The goal of Upward Bound is to increase the rate at which participants complete secondary education and enroll in and graduate from institutions of postsecondary education. (U.S. Department of Education, n.d., para. 1)

Career Education was another initiative championed by Marland, and he even has been referred to as the father of the movement (Jolly, 2009b). Again, this was another program that Marland had initially piloted in Pittsburgh. He advocated for an integration of "the intellectual and the utilitarian aspects of learning, ending the foolishly divisive practice of separating the academic and occupational and calling the later an inferior endeavor for inferior minds" (Council for Basic Education, 1973, p. 4). Marland envisioned career education starting in elementary school, where children would learn "what it means to work" (Council for Basic Education, 1973, p. 5). During high school, students would receive hands-on experience connecting the high school curriculum to real-world applications and to a wide range of career options. The foundations that Marland laid for career education remain evident in today's career education programming (Jolly, 2009b).

The Marland Report

The Marland Report was initiated by U.S. Senator Jacob Javits, author of the law providing special education programming for gifted children. According to Sec. 806(c) P.L. 91–230, Marland was tasked with assessing what types of special programming were useful in meeting the needs of gifted and talented students, determining which programs already met the needs of the gifted and talented, assessing whether other existing programs could be used to meet these needs, and recommending new programs for gifted and talented learners.

Since gifted education's formal inception as a field of study and the more systematic approach to serving gifted students that had developed beginning in the early 1920s, attention to gifted students "waxed and waned but never reached the level of a total national commitment" (Marland, 1972a, p. 69). As a superintendent, Marland had witnessed some level of federal interest during the late 1950s and early 1960s, which supported the National Defense Education Act and its myriad of programs and funding for academically capable students who exhibited talent in the sciences and mathematics (Jolly, 2009a). However, during the 1960s the priorities of the Office of Education shifted "to the disadvantaged, to improved vocational education and education for the handicapped, to the thrust for equal education opportunity, [and] to integration" (Marland, 1972a, p. 69).

The Marland report recognized that insufficient attention was being paid to gifted students. The report also set forth the following objectives which included establishing a planning report, program responsibility, nationwide inventory and assessment of current programming, strengthening state education agencies, providing leadership and training, developing career education models, establishing experimental schools, organizing further programming for gifted students in higher education, and identifying regional offices. The report included input from some of the top experts in the field—Virgil Scott Ward, Joseph Renzulli, Irving Sato, and Joseph French. Feedback and external review was also garnered from A. Harry Passow, Abraham J. Tannenbaum, and Jacob Getzels, along with commissioners of education from across the United States.

The report also established the first federal definition of giftedness:

> Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:
>
> 1. general intellectual ability
> 2. specific academic aptitude
> 3. creative or productive thinking
> 4. leadership ability
> 5. visual and performing arts

6. psychomotor ability [removed from the definition in 1978]. (pp.10–11)

The recognition that the Marland Report brought to gifted education and to students with gifts and talents was immeasurable, and today, 40 years later, it is still regularly referenced as a milestone in gifted education (Cross, 1999; Delisle, 1999). Perhaps the Marland Report's major failing was relying on the system to sustain "concern, interest, and commit[ment]" (Marland, 1972a, p. 69). The report went on to suggest that new laws and massive expenditures would not be required. Unfortunately, the lack of specific laws similar to the ones that special education students were afforded only a few short years later in 1975 have kept gifted education vulnerable. At the beginning of the second decade of the twenty-first century, gifted education is more fragile than ever before. The Marland Report was in many ways a missed opportunity to cement gifted education's imprint on federal educational priorities. Without federal legislation, gifted education and the students it serves require constant defibrillation by those who remain concerned, interested, and committed.

Marland's Life After Public Service

After Marland finished out his term as Assistant Secretary for Education in the Department of Health, Education, and Welfare, he joined the College Entrance Examination Board (CEEB) as president in 1973. In 1975, the public cast its eyes on the CEEB for an explanation regarding the "unexplained decline in scores earned by students on the Scholastic Aptitude Test" (CEEB, 1977, p. iii). Over a 10-year period from 1964 to 1974, SAT scores declined 10 points on the verbal portion and 8 points on the math. Marland appointed a "blue ribbon" panel who found that the demographic characteristics of SAT test takers had changed over the same time period and that those students who traditionally took the SAT had not declined in achievement. The panel also found that there was little correlation between the SAT and high school curriculum (Finder, 2004).

After Marland's tenure on the CEEB, he served as chairman of the editorial board for *Scholastic Magazine* and on the Board of Governors for Higher Education before retiring in 1986. Marland remained active

during his retirement, teaching as an adjunct faculty member at the University of Connecticut and pursuing gardening. He and his wife Virginia kept greenhouses at two of their residences, raising enough plants and flowers to supply geraniums, delphiniums, and begonias to local florists. He even diversified to growing Christmas trees, wholesaling to various distributors (S. P. Marland III, personal communication, June 5, 2009).

Marland passed away from cancer in 1992 at the age of 77, leaving a lineage of educational advocacy for children from all socioeconomic levels of society and across a broad range of educational needs. Throughout his extensive career in education, Marland consistently acknowledged the special education needs of gifted children. Moreover, this gentleman from the "quiet corner" of Connecticut will be forever linked to gifted education through the Marland Report, which provided legitimacy for gifted children at the federal level and raised their visibility, if only temporarily.

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23

CONCLUDING THOUGHTS ON A CENTURY OF CONTRIBUTIONS TO GIFTED EDUCATION

Ann Robinson and Jennifer L. Jolly

The fascinating figures in *Illuminating Lives* are representations of the establishment and growth of the field of gifted education but are in no way exhaustive. Nevertheless, this collective group of individuals provides pause; readers interested in gifted children have the opportunity to consider how the field began as an outgrowth of educational psychology, a close relation of psychology, to become an independent field of study. The growth was not necessarily linear or without detractors. The growing pains that expansion inflicts on research, practice, and advocacy are evident in several of the lives recounted here, but the development of ideas espoused by these individuals and others like them has guided the field to its current state.

From the foundational pioneers, through the great investigators, to the builders and codifiers of the field, themes appear and reappear across the century, and common concerns are shared by many of these individuals, although not all ideas are afforded unanimity. As one might expect from individuals committed to individual differences, conceptual if not personal disagreements are on display here. Themes of the psychology of individual differences, the influence of the mental measurement industry, the commitment to creativity in children and adults, the concern for curricula and programs adapted to the needs of advanced learners, and the continuous well of advocacy and action are found in the lives and work of one or more of them. In terms of the foundation and development of theory, research,

practice, and advocacy in gifted education, our forbearers are a diverse lot. Taken together, they provide a group portrait, but one in which not everyone is looking the same direction.

The group of researchers and advocates appearing in *Illuminating Lives* has also experienced unevenness in intensity and interest in gifted children and the phenomenon of giftedness. In nearly all cases, these individuals not only focused on the concerns of gifted education but also on other issues as well. Across most of the lives and professions teased from archival and secondary source research, our authors found intense interests and marshaled significant productivity in a variety of domains. Galton made original contributions to several fields from statistics to criminology. Several of the key figures investigated for this project engaged in the arts as well their psychological science and educational career interests. Alfred Binet enthusiastically participated in the theatre arts, Leta Hollingworth wrote poetry, Mary Meeker painted, and Ann Isaacs composed music as well as created visual art.

In each chapter, the *Illuminating Lives* authors have included discussions or alluded to substantive work done by these individuals outside the field of gifted education. Catharine Cox Miles contributed to the psychological literature on gender. Harry Passow was a force in the education of the urban poor. Paul Witty and Ruth May Strang were reading scholars. Martin Jenkins converted his interests in gifted African American children to developing the talents of college students attending an HBCU. Others like W. E. B. Du Bois and Sidney P. Marland Jr. spent the bulk of their careers in other academic and administrative vineyards, but each made single important contributions to gifted education. Finally, the Marland Report provided legitimacy to a group of children whose needs had otherwise floated on the periphery of the educational consciousness. His contribution is a fitting end to *Illuminating Lives*; it opens the next 100 years with the promise of things to come.

In addition to the forward-looking conceptual and historical analyses in *Illuminating Lives*, we also sought to build a core group of scholars for whom biographical research might become a methodological vocation. We hoped to communicate the magic of archival research, the breathless pursuit of elusive detail, the satisfaction of locating documents that permit the biographical researcher to make an insightful inference, and the tantalizing

biographer's journey of understanding another's life. Biographer Richard Holmes explained the biographi-cal enterprise most eloquently:

> “Biography” meant a book about someone's life. Only, for me, it was to become a kind of pursuit, a tracking of the physical trail of someone's path through the past, a following of footsteps. You would never catch them; no, you would never quite catch them. But maybe, if you were lucky, you might write about the pursuit of that fleeting figure in such a way as to bring it alive in the present. (1985, p. 27)

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INDEX

AAAS *see* American Association for the Advancement of Science
AAGC *see* American Association for Gifted Children
ability 54, 120, 209, 224
Academy of Moral and Political Sciences 24, 26
achievement gap 215
African Americans 6; education of 56–7, 138, 294–5; giftedness in 116, 122, 130–1, 133–6, 176–8; in Great Barrington 44–5; at Harvard 48; intelligence of 109; Stanford-Binet Intelligence Scale for 136; *see also specific African Americans*
Air Force Survival Training Program, U.S. 166–7
alienists *see* psychiatrists
All-African Peoples' Conference 52
Allard, Moina 24
Allington, D. 155
Les Altérations de la Personnalité (Binet, Alfred) 24
"Always and Forever Roses" (Hollingworth, L.) 80
American Association for Gifted Children (AAGC) 120; Strang, R., and 199, 201, 241, 244–5, 253; Witty, P., at 116, 132, 244
American Association for the Advancement of Science (AAAS) 260
American Association of School Administrators 252
American Council of Education 138
American Friends Service Committee 102
American Historical Society 48
American Men of Science (Cattell and Brimhall) 94
American Museum of Natural History 199
American Negro Academy 50
American Psychological Association (APA) 3, 67, 116, 207–8, 285
Andrieu, Bernard 23
Anna S. Cox Brinton Family Papers 102
L'Année Psychologique 25, 34
Ann Fabe Isaacs Founders' Memorial Award 256
anticyclone 18
APA *see* American Psychological Association
architectural psychology 145, 150
"Are We Short-changing the Gifted?" (Passow, A.) 224
Armande (pseudonym) 29
Army, U.S. 146, 165, 166, 217, 222, 233, 291–2
Aronson, Jason 186

The Art of Travel (Galton, F.) 18
Association for Supervision and Curriculum Development (ASCD) 229
The Association for the Gifted (TAG) 199, 234, 238–9, 264
Athens, Georgia 170, 174, 176
Atlanta University 49, 52, 53, 57
Ausubel, David P. 225
authors 34–5
Avanzini, Guy 23

Baku, Azerbaijan 202
Balbiani, Edouard Gerard 24
Balbiani, Laura 24
Ballard, Virginia 251
Bandalos, D. 173–4
Banta, Arthur 65
Barbe, Walter 5, 119–20, 123, 127, 261
Bar-Ilan University 222
Beaunis, Henry 24
"Beautiful, Proud Sea" (Teasdale) 81
behaviorism 152
BER *see* Bureau of Educational Research
Best Practices in Gifted Education: An Evidence-Based Guide (Robinson, Shore, and Enersen) 239
beyonders 170–1
Billingsley, Andrew 139
Binet, Alfred Edouard Louis Antoine 6, 303; career of 25–36, 37; education of 24; Grand-Guignol Theater for 24, 34, 35–6; *see also* Stanford-Binet Intelligence Scale
Binet, Alice 24, 32
Binet, Edouard 24
Binet, Madeleine 24, 29, 32
Binet Archives 37
Binet-Simon Metric Scale 23, 24, 32–3, 36
Binet-Simon Society 23, 37
Biographical Inventories 116, 150, 151, 152, 166
Biographical Inventory Form A 150
biometrics 14
Black colleges 138
Bloom, S.W. 125
Bond, Howard Mann 131
Bonnis 36–7
Booker T. Washington Middle School 131
Borland, J.H. 95
Boston Psychopathic Hospital 184
Brain-Talent Powers Press 157
Brandwein, Paul 199
Bright Underachievers (Raph, Goldberg, M., and Passow, A.) 205, 208, 211–13
Brimhall, D.F. 94
Broadley, Margaret 166
Broca, P. 26
Bronson, Dr. 72–3
Brown vs Board of Education 57, 115, 225

Buisson, Ferdinand 30
Bulmer, M. 17
Bureau of Educational Research (BER) 167
Bureau of Education Program Research and Statistics, New York City Board of Education 208
Burghardt, Idelbert 42
Burghardt, John 42
Burghardt, Mary Silvina 42, 43
Burghardt, Othello 42
Burghardt, Sally 42
Burroughs, N. 56
Butler, Louisa 18
Butler, Reverend 19

caffeine 85–6
calculation 26–7
California State University, Northridge 280
Cambridge University 11
Canada 187
Career Education 297
Carmichael, Leonard 108
Carnegie Corporation 95–6, 236
Carnegie Mellon University 295
Carroll, J.B. 281
Carter, Jimmy 177
"Case Studies and Genetic Records of Two Gifted Negroes" (Theman and Witty, P.) 122–3
Caswell, Hollis 220, 224
Catholic University of Lublin 182
Cattell, James McKeen 85, 94, 105
causation 14
CCAQ see Creative Child and Adult Quarterly
CEC *see* Council for Exceptional Children
CEEB *see* College Entrance Examination Board
Cemetery of Montparnasse, Paris 36
Center for the History of Psychology 5, 101, 102
Central Normal College 66
Chadron, Nebraska 81
Chapman, P.D. 69–70
Charcot, Jean-Martin 24, 36
Cheney State College, at Pennsylvania 132
chess 27 "Childhood Physical and Mental Health Records of Historical Geniuses201D; (Miles, Catharine, and Wolf. L.S.) 107
Child Psychiatry Institute 186
Children of IQ Over 180 (Hollingworth, L.) 87–8, 89
Cienin, Pawel (pseudonym) 191
cigarette, description of 30
Civil Rights Act, 1964 200
Civil Rights Movement 137
Claparède, Edouard 183
Clark, A.C. 155
Clark, Kenneth B. 214

Clark University 62, 67
Cleveland Major Work Program 227
Coca-Cola Company 85
Coffee, Kay 286
Cold War 115
College de France 24
College Entrance Examination Board (CEEB) 299
College of the Pacific 102
colored audition 25–6
Columbia University 82, 86, 97, 119, 202–3; *see also* Teachers College, Columbia University
Commission Bourgeois 31, 36
Commonwealth Fund 71, 72
communism 51, 52
Conant, J.B. 125–6, 246
Conference on Curriculum and Teaching in Depressed Urban Areas 225
Congress of Vienna 182
Conradi, Edward 67
"Contribution to the Study of the Nervous System in Insects Tracts201D; (Binet, Alfred) 24
convergent thinking 156
Cook, Dean Walter 167
Coomer, Anne 123
Cope, Dorothy 147
Cornell, Dewey G. 238
correlation 8
Council for Exceptional Children (CEC) 199
Cox, Anna Shipley 102
Cox, Catharine Miles *see* Miles, Catharine Morris Cox
Cox, Charles Ellwood 102
Cox, Lydia Shipley Bean 102
CPS *see* Creative Problem Solving Process
Cradles of Eminence (Goertzel, M., and Goertzel, V.) 200
Cramond, B. 173–4
"The Creative Child201D; (Torrance, E.P.) 168
Creative Child and Adult Quarterly (*CCAQ*) 257, 269, 270–1, 272
creative positives 177
Creative Problem-Solving for Everyday Life: An Odyssey in Common Sense and the Arts (Isaacs, A.) 272
Creative Problem Solving Process (CPS) 174
creative processes 34–5
creative scientists, talents of 151
Creative Style of Life Achievements 173
creativity 125–6; as aptitude 166; assessment of 207; conferences 152–5; curriculum and 175–6, 226–7; environment for 145; gender and 173; Guilford and 148; as natural 171–2; poverty and 176–7; survival definition of 166–7; Taylor, Calvin, on 144, 145; testing for 172–3; workshops 176–7, 270
Creativity of Gifted and Talented Children (Witty, P., Conant, and Strang, R.) 125–6, 246
Crisis in Black and White (Silberman) 214
"Current Thought: Fifty Contemporary Concepts in Differential Education for the Gifted201D; (Jellen and White, W.B.) 237
curriculum 175–6, 226–7

Curriculum Council, National/State Leadership Training Institute 227–8
Cutsinger, William 64–5

Dabrowski, Anna 185
Dabrowski, Antoni 181–2
Dabrowski, Eugenia 185, 186
Dabrowski, Joanna 185
Dabrowski, Kazimierz 115, 116, 181; career of 182, 184–7, 188, 189–95; education of 182–3; theory of positive disintegration by 182, 185, 187, 192–5
Dallas Cowboys 147
Damiandi 27
Daniels, Roberta Braverman 284
Danielson, Connecticut 290
Danley, Margaret Elinor 81, 82
Danley, William 82
Danville, Indiana 66
Darien, Connecticut 291–2
Darwin, Charles 8, 9, 12, 13, 18, 19–20
Darwin, Erasmus 9
Darwin Medal 18
DeHaan, R.F. 225
Delaware State College 138
De Lorde, André 34, 35
Department of Education, U.S. 136, 229, 285, 297
Department of Health, Education, and Welfare (HEW) 296, 299
Department of Public Charities 86
Department of Special Collections and University Archives, Stanford University 76
depression 10, 192
developmental potential 191–2
Dewey, John 95
DeWitt, Nebraska 84
DeWitt Clinton High School 203, 211, 212
Dictionary of American Biography 110
Dictionary of National Biography 9–10
Differential Education for the Gifted (Ward, V.) 234, 237–8
differentiation 232, 233, 234, 239
divergent thinking 156
Dix, Dorothea 184
Dombrowski, Casimir *see* Dabrowski, Kazimierz
Draper, W.D. 271, 272
Draw-a-Man test 106
drive 106, 120, 121
Du Bois, Alfred 42–3
Du Bois, W.E.B. 5, 43, 58; career of 6, 44, 48–53, 54–5, 56–8, 137–8, 303; education of 45–7, 48, 54, 55–6
Duchan, J. 211
Dudley Park 176, 177
Duke University 233, 245
Dusk of Dawn: An Essay Toward an Autobiography of a Race Concept (Du Bois, W.) 44

The Early Mental Traits of Three Hundred Geniuses (Miles, Catharine) 101, 102, 104–8, 111
Edel, Leon 3
Educating the Gifted (Passow, A.) 224
Educating the Gifted: An Axiomatic Approach (Ward, V.) 200, 232, 233, 234–6, 239, 240
education 185; acceleration of 73, 74, 124, 125, 206; of African Americans 56–7, 138, 294–5; *Brown vs Board of Education* 57, 115, 225; career 297; curriculum 175–6; for deaf children 243; enrichment 91–2, 206, 226–7; medical school 150; minorities in 56, 213–15; opportunity classes 74–5; preschool 215; rapid progress 90, 91; science 124; segregation 51, 122, 133; special opportunity classes 91; Talented Tenth in 53–4; Witty, P. on 124; *see also specific schools*
Educational Administration and Supervision 124–5, 258, 261
Educational Leadership 223
Education for Gifted Children and Youth: An Old Issue—A New Challenge (Passow, A.) 224–5
Education in Depressed Areas 225
Education of Gifted Children (Stedman) 74
Education of the Disadvantaged (Passow, A., Goldberg, M., and Tannenbaum) 205, 213–15
Education of the Handicapped 264
The Effects of Ability Grouping (Goldberg, M., Passow, A., and Justman) 205, 208–11
Egypt 18
Eisenhower, Dwight D. 200, 224
Elementary and Secondary Education Act 296
Ellington, Duke 15
Ellison, R. 145, 149, 150
eminence 12, 13
emotional blocks 250
emotional intelligence 193
emotions 116, 190, 192, 193
Employment Service National Research Program, U.S. 147
encoding ability 26
Enersen, Donna 239
English Men of Science (Galton, F.) 9, 13, 20
enrichment 91–2, 206, 226–7
E. Paul Torrance Award 286
E. Paul Torrance Lecture 169
Ethical Culture Schools 202
Ethical Culture Teacher Education Department 202
Etudes de Psychologie Dramatique (Pierron) 35
eugenics: Galton, Francis, and 13–14, 16, 18, 20, 21; giftedness and 62; Hollingworth, L., and 92–6; *see also* heredity
Eugenics Movement 93, 94
evaluative thinking 156
Evanston, Illinois 116, 211–12
Evanston Township High School 211–12
Exceptional Children (Witty, P.) 125
The Experimental Study of Intelligence (Binet, Alfred) 29, 32

Fabe, Bessie 257
Fabe, William 257
"Factors in the Life of History of Talent" (Miles, Catharine) 110

Fagan, T.K. 89
Fanchon, R.E. 16
Ferrand, Ludovic 25
Fieldston School 202
Fine, Benjamin 261
fingerprinting 14, 18
First International Congress of
Eugenics 18
First World Conference on Gifted and Talented Children 223
Fisher, Maurice 4, 238
*Fisk Herald*47
Fisk University 47, 53, 54
Flanagan, John C. 200
Flynn effect 37
A Follow-Up Study of Negro Youth of Superior Intelligence (Theman) 122
Fordham, S. 215
Form U 116, 152
Foshay, Arthur W. 209
Foss, Lucas 270
"Four Guideposts for the Education of the Gifted" (Strang, R.) 245
Fox, Lynne 286
FPS *see* Future Problem Solving Program
FPSPI *see* Future Problem Solving Program International
Fragments from the Diary of a Madman (Cienen) 191
France 24, 25, 31, 32; *see also* specific government departments
Frasier, Mary 169–70, 177, 225, 256
The Free Society for the Psychological Study of the Child (Société Libre Pour L'étude Psychologique de L'enfant) 29–31
French, Joseph 298
French, W. 205–6, 221, 225
"The Frequency of Amentia as Related to Sex" (Hollingworth, L.) 87
Freud, Sigmund 36, 188
functional periodicity 86–7
Future Problem Solving Bowl 174
Future Problem Solving (FSP) Program 168, 174–5, 270
Future Problem Solving Program International (FPSPI) 173–5

Galton, Adele 10
Galton, Emily 10, 18
Galton, Francis 1, 5, 6, 10; career of 8, 9, 12–15, 16, 18, 20–1, 70, 105, 303; Darwin, C., and 8, 9, 13, 18, 19–20; education of 11, 105; eugenics and 13–14, 16, 18, 20, 21
Galton, Samuel 9
Galton, Samuel Tertius 10
Galton, Violetta 10
Galton Archive, University of London 4, 9, 15
Galton Chair, University of London 16, 18
Galton Laboratory 8
Garcin-Marrou, F. 35
Gardner, Howard 158
Gates, Arthur 243

gender 86–7, 173, 250
Genetic Studies of Genius (Terman, L.) 63, 68, 73, 75; citations of 76, 106; Volume II 101, 102, 105; Volume V 69
Genetic Studies of Genius: The Gifted Group at Mid-Life (Terman, L.) 69
genius 1, 12, 18; giftedness and 105, 106; neurosis and 70–1; personality and 106; terminology of 109
"Genius and Stupidity: A Study of Some the Intellectual Processes of Seven 'Bright' and Seven 'Stupid' Boys" (Terman, L.) 67, 73
Geodetic Survey team, U.S. 146
Georgia Military College 164, 166
Georgia State College for Women 165
Germany 102, 105, 223
Gesell, Arnold 67, 108
Getzels, J.W. 207
Ghana 52
The Gifted and Talented Children and
Youth Act, 1986 221
Gifted and Talented Children in the Regular Classroom (Torrance, E.P., and Sisk) 170
The Gifted Child (Witty, P.) 120–1, 124, 132, 199, 205
"The Gifted Child in 1967" (Witty, P.) 126
"The Gifted Child in the American Culture of Today" (Mead) 199
*The Gifted Child Newsletter*260
*Gifted Child Quarterly*199, 257; editorials in 261, 263, 264, 265, 269, 271; editorship of 266; founding of 260; letter to 270; memorial in 202, 204; NACCA in 269
Gifted Children: Their Nature and Nurture (Hollingworth, L.) 93, 144, 205
Gifted Education (Jolly, J.L.) 74
giftedness: ability and 54, 120, 224; in African Americans 116, 122, 130–1, 133–6, 176–8; as asynchronous development 193; definitions of 235, 247, 298; emotions in 116, 192, 193; eugenics and 62; genius and 105, 106; as handicap 264; health and 107, 108, 122; indicators of 26, 54–5, 56, 193, 248–9; intelligence and 148; IQ and 212, 248; minorities 56, 69, 72, 247–8; misdiagnosis of 195; overexcitability with 192, 194; reading and 251; social adjustment with 71, 88, 122, 250, 251–2; special needs with 249–50; stereotypes of 70–1, 88, 96; superiority with 92–3; Talented Tenth and 53–4; teaching for 55–6, 252; terminology of 109, 216; types of 282–3; underachievement and 211–13, 217, 248, 251–2; vocational guidance 250; *see also* genius
Gifted-Talented-Creative (GTC) 270, 271
Gilman, D.A. 120
Ginn and Company 175
Gladwell, Malcolm 73
GLEP *see* Graduate Leadership in Education Program
Goddard, Henry 34, 37, 68
Goertzel, Mildred 200
Goertzel, Victor 200, 261
Goff, Kathy 170
Gold, Milton 223
Goldberg, Carl 202, 203
Goldberg, Miriam L. 200220; career of 202–16, 221, 225; education of 202–3
Goodenough, Florence 108
Google Scholar 106, 107
Governor's Schools, North Carolina 200, 227, 234, 236–7
Gowan, John 261, 268, 269

Graduate Leadership in Education Program (GLEP) 229
Graham, Shirley 51–2
Grand-Guignol Theater 24, 34, 35–6
La Grange aux Belles 30
Granite School District, Utah 154
Grantham, Tarek 177–8
Great Barrington, Massachusetts 42, 45–6, 55–6
Green Library, Stanford 102
Grimjes, Gladys 261
Grove School 202
GTC *see* Gifted-Talented-Creative
Guiding Creative Talent (Torrance, E.P.) 168
Guilford, Joy P.: at APA 116; creativity and 148; papers of 3–4; SI 200, 207–8, 217, 277, 279, 280, 281, 285

Hadassa-Wizo-Canada Research Institute 222
Hall, G. Stanley 62, 67
Hamburg, Germany 223
Hamilton County Welfare Department 258
Harris, C.R. 92
Harris, William Torrey 289
Harrison, Benjamin 289
Harvard 46–7, 48, 54, 55, 184
Hastrorf, Albert 73
Haverford College 5, 102
Haverford Library Quaker Collection 102
Havighurst, R.J. 225
Havighurst, Robert J. 214, 225
Hayes, Rutherford B. 55
Haynes, Euphemia L. 225–6
head circumference 28
Head Start 215, 217, 297
Heineken, Christian Heinrich 109
Heller, Kurt 223
Helping Your Child Develop His Potentialities (Strang, R.) 246
Helping Your Gifted Child (Strang, R.) 246
Henri, V. 28, 32
Henri Piéron Center 36
Hereditary Genius (Galton, F.) 1, 9, 12, 13, 14, 18, 19, 20
heredity 12, 67, 69, 94, 135
HEW *see* Department of Health, Education, and Welfare
hierarchy of values 188
historiometry 104–5, 106
History of Western Nebraska and its People (Shumway) 81–2
Holland, John 148
Hollingworth, Harry L. 62, 80–1, 84, 86, 89
Hollingworth, Leta Stetter 70, 82; career of 61, 62, 84–96, 144, 205, 243, 244; education of 83, 86; eugenics and 92–6; health of 96–7; last words of 97–8; poetry by 79–81, 303
Hollywyck 97
Holocaust 16

Homer 10
homosexuality 217
Horace Mann-Lincoln Institute of School
Experimentation 203, 205, 206–7, 209, 220, 222
L'horrible Experience (The Horrible Experiment) (Binet, Alfred) 36
Hosmer, Frank 46
Hotel Tuller 118
Howard and Anna Brinton Papers 102
Howard University 53, 131, 133, 138
"How are Creative-Innovative Individuals Inspired?" (Isaacs, A.) 270, 271
How to Teach Ourselves to be Good to One Another (Isaacs, A.) 270
Huey, E.B. 67
Humboldt University 53
Hunter College Elementary School 283
Husen, Torsten 222
Hutchinson, W.L. 155
Huxley Society 18
hypnosis 27
hysteria 24

IBRIC 151, 152
ICIRI *see* International Council for the
Improvement of Reading
Instruction
ideational fluency 144, 147
Iliad (Homer) 10
illiteracy 55, 126–7
"Immediate Memory And Its Correlates With School Achievement" (Meeker, M.) 279–80
Inaudi 26–7
Incubation Model 175–6
Indiana Normal School 132
Indiana State Normal School 118
Indiana State Teachers College 118
Indiana State University 138
Indiana University 66
individual psychology 6, 29
inferential statistics 14
inner psychic milieu 190–1
"Inner World of Gifted Adolescents" (Strang, R.) 249–50
Inquiry into Human Faculty (Galton, F.) 18
instincts 188
Institute for Personality Assessment Research (IPAR) 148
Institute for Political Education, Morgan State College 137
Institute of Mental Hygiene 184–5, 186, 188
"The Intellectually Superior Negro Youth: Problems and Needs" (Jenkins, M.) 136–7
intelligence: of African Americans 109; as dynamic process 31; emotional 193; gender and 86–7; giftedness and 148; heredity and 67, 69, 94, 135; memory and 27; scale 13, 23, 31, 32, 34, 61, 68, 73; segregation by 91; types of 281; *see also specific measures of* "Intelligence and Its Measurement" (Thorndike) 243
intelligence quotient (IQ): giftedness and 212, 248; grouping by 208–11; of historical figures 107

International Council for the
Improvement of Reading Instruction (ICIRI) 127
International Handbook of Research and Development of Giftedness and Talent (Heller and Passow, A.) 223
*International Journal of Psychiatry*186
International Peace Prize 53
International Reading Association 127, 244
IPAR *see* Institute for Personality Assessment Research
IQ *see* intelligence quotient
Irish, discrimination 44
Isaacs, Ann Fabe 199, 201; career of 256–74; creative works by 271–2, 303; education of 257–8
Isaacs, Margery 258
Isaacs, Susan 258
Isaacs, Ted 256, 258–9
It's All Been Interesting and Unexpected (Passow, A.) 220

Jackson, John Hughlings 188
Jackson, P.S. 192
Jackson, P.W. 207
Jacob, J. 28
Jacob Rader Marcus Center of the American Jewish Archives 257
James, Larry 145, 149
James, William 56
Janet, Pierre 183, 188–9
Javits, Jacob K. 290, 297
Jean Desmarest (fictional character) 35
Jean-Jacques Rousseau Institute 183
Jellen, Hans G. 237
Jenkins, David W. 131
Jenkins, Josephine 131
Jenkins, Martin David 109, 115, 116; career of 122, 132–8, 139, 140, 303; education of 131, 132
Johns Hopkins University 138, 234
Johnson, D. 155
Johnson, Lyndon 200, 216
Joint University Libraries 69
Jolly, J.L. 74
Jordon School District, Utah 156
*Journal of Educational Psychology*122
*Journal of Negro Education*134–5
Judge Baker Guidance Clinic 184
Justice Department, U.S. 51
Justman, Joseph 205, 208–11

Kandinsky, Wassily 15
Kansas State College 165
Kantsaywhere (Galton, F.) 16, 18
Kaplan, Sandra 227
Kierkegaard, Søren 182
Killingley, Connecticut 289

Kilpatrick, William Heard 94
King, Martin Luther, Jr. 41, 51
Klarów, Poland 181–2
Klein, Alexandre 23
Knowledge Outcome-Based Education (KOBE) 157
knowledge scales 31
KOBE *see* Knowledge Outcome-Based
Education
Kraków, Poland 186
Krippner, Stanley 269
Kuhlmann, Fred 67
KUOM 110

Laboratory of Experimental Pedagogy 30
Laboratory of Experimental Psychology, Sorbonne 24
Laboratory of La Grange aux Belles 36
Laboratory of Physiological Psychology, Sorbonne 24
Lackland Air Force Base 150
Lacklen, Robert 150
Lacy, Pherndena Elizabeth 132
Leadership and Self-attitudes (Goldberg, M.) 202–3, 211
Une leçon à la Salpétrière (A Course at the Salpétrière) (De Lorde) 35–6
Lehman, H.C. 120, 121
Lenin Peace Prize 53
Levin, Miriam 202
Lifetime Education: A Theory and System of General Education for Today and Tomorrow (Ward, V.)
239–40
linguistic fluency 144
literacy 55, 126–7
Lohman, D.F. 53
Lombroso, Cesare 70–1
"Lone Pine" (Hollingworth, L.) 79–80
Long Beach, California 251
Look magazine 168
Los Angeles Normal School 68, 74
Los Angeles Unified School District 278–9
Lowe, Jean 110
Lunar Society 9
lynchings 47
Lyon, Harold C. 237

McCall Multi-Mental Scale 133
McCook, Nebraska 84
McKinley, Jefferson 43
Maker, June 284
Making the Creative Leap Beyond (Torrance, E.P., and Safter) 170
The Manifesto: A guide to Developing a Creative Career (Torrance, E.P.) 170
The Man of Genius (Lombroso) 70–1
Manual of Child Psychology (Carmichael) 108

Margolin, L. 93
Marguerite (pseudonym) 29
Marland, Ruth Johnson 290
Marland, Sidney P. 290
Marland, Sidney P., Jr.: in Army 290–1; career of 289–99, 303; Marland Report 75, 192–3, 201, 237, 289–90, 297–9
Marland, Virginia 290
Martha, James 64–5
master race 14
Matiegka, H. 28
Matthews-Morgan, J. 173–4
Maxwell, Jessica 278
Maxwell, Norman 278
Maxwell, Valerie 278, 285
Mayer, J.D. 193
Mazurkiewicz, Jan 182, 189
Mead, Margaret 108, 199
medical school 150
Meeker, Heather 279
Meeker, Mary 200, 303; career of 277 – 87, 281; education of 278, 279 – 80, 285
Meeker, Robert 279, 283, 286
melancholia 10
Memories of My Life (Galton, F.) 11, 12, 18, 19
memory 26 – 8
mental age 33, 74, 105
mental calculation 26
mental hygiene 184
*Mental Hygiene*258
Mercer University 165
meteorology 14, 18
Metric Scale *see* Binet-Simon Metric Scale
Meyer, Gerard 183
Meyers, C.E. 280
Middle Ages 14, 20
Midway Vocational High School 164
Miles, Anna 103
Miles, Caretta 103
Miles, Catharine Morris Cox 5, 61; career of 63, 101, 102, 103 – 11, 303; education of 101, 103; Terman-Miles Masculinity-Femininity Test 103, 111
Miles, Charles Ellwood 103
Miles, Marjorie 103
Miles, Thomas 103
Miles, Walter R. 63, 101, 104
Milledgeville, Georgia 163, 164
Milne, Bruce 227
Milton, John 111
Ministry of Education, France 31, 32
*Minnesota Tests of Creative Intelligence*172
minorities 56, 69, 72, 213 – 15, 247 – 8
Minton, Anna 65, 66

Miriam Levin Goldberg Research Prize 203
Mitchell, Patty Bruce 169
Mobile, Alabama 157
Monakow, Constantin von 188
Montana 146
Montelupich prison 186
Montgomery bus boycott 51
Montreal, Canada 187
Moore, Dr. 72 – 3
Morehouse, H.L. 53
Moreno, Jacob 165
Morgan, Clement 56
Morgan, Johnny 46
Morgan State College 53, 137
Mormons 145
Mort, Paul 90
motivation 106, 120, 121
Mozart, Amadeus 107
Mozart Society 47
Mulaik, Jane 149
Mulaik, Stan 149
Multiple Intelligences 158
multiple talents 155, 156 – 7

NAACP *see* National Association for the Advancement of Colored People
NACCA *see* National Association for Creative Children and Adults
NAGC *see* National Association for Gifted Children
Namibia 12
NART *see* National Association of Remedial Teachers
NAS *see* National Academy of Sciences
NASA *see* National Aeronautics and Space Administration
Nashville, Tennessee 47
National Academy of Sciences (NAS) 150
National Aeronautics and Space Administration (NASA) 150
National Assessment of Educational Progress 56
National Association for Creative Children and Adults (NACCA) 257, 269, 270
National Association for Gifted Children (NAGC) 126, 199, 229; Articles of Incorporation for 259, 261; Board of 261, 265, 286; conferences of 260 – 1; founding of 256, 257, 258 – 9; without Isaacs, A. 266, 267 – 8, 269; Meeker, M., at 286
National Association for the Advancement of Colored People (NAACP) 50 – 1, 131, 133
National Association of Remedial Teachers (NART) 127
National Association of Secondary Principals 261
National Association of Women Deans and Counselors 144
National Culture Foundation 183
National Defense Education Act (NDEA) 115, 263, 296, 298
National Institute of Mental Health 148
National Institutes of Health 270
National Negro Committee 50
National Research Center on the Gifted and Talented (NRC/GT) 289

National Science Foundation (NSF) 152
National Social Science Honor Society 234
*National Society for the Study of Education Yearbook*122, 226 – 7, 247, 261
Natural Inheritance (Galton, F.) 14, 18
"Nature and Extent of Educational Provisions for the Gifted" (Witty, P.) 124
The Nature of Human Intelligence (Guilford) 217, 281
nature *versus* nurture 13
Naval Submarine Base 104
Nazis 185
NCA&T *see* North Carolina Agricultural and Technical College
NDEA *see* National Defense Education Act
near-genius 109
Nelson, Tom 187
NEMI *see* New Metric Scale of Intelligence
neurology 188
neurosis 70 – 1
New Metric Scale of Intelligence (NEMI) 37
New Stanford Achievement Test 122
Newton, Isaac 70
New York Academy of Medicine Library 243
New York City, New York 84, 217
New York City Board of Education 92
New York Public Library 53
New York Society for Ethical Culture 202
New York State College for Teachers, Albany 222
Niagara Movement 41, 50
Nice, France 24
Nicolas, Serge 23, 25
Nixon, Richard 296
Nobel Peace Prize 53
No Child Left Behind 158
North Carolina Agricultural and Technical College (NCA&T) 132
Northwestern University 5, 116, 119, 123, 127, 132
N*othing Can Be Changed Here* (Dabrowski, K.) 191
NRC/GT *see* National Research Center on the Gifted and Talented
NSF *see* National Science Foundation

object description 29
The Obsession or the Two Strengths (*L'obsession ou Les Deux Forces*) (De Lorde and Binet, Alfred) 35
O Dezytywnej Pozytywnej (On Positive Disintegration) 186
Odyssey (Homer) 10
OE *see* overexcitability
Office of Economic Opportunity (OEO) 295 – 6, 297
Office of Gifted and Talented 237
Office of Urban Affairs, American Council of Education 138
Ogbu, J.U. 214 – 15
Ohio University 258, 261
On Positive Disintegration (*O Dezytywnej Pozytywnej*) 186
On the Edge and Keeping on the Edge (Torrance, E.P.) 170

"Open Letter to Readers of the *GCQ* " (Isaacs, A.) 266 – 7
"Operation Headstart" 296
opportunity classes 74 – 5, 110
Origin of the Species (Darwin, C.) 12, 18
Osborn, Alex 174
Otis, Arthur 217
Otis Alpha 209
Otis-Lennon School Ability Test 217
Outcome-Based Education movement 157
Outliers (Gladwell) 73
overexcitability (OE) 192, 194

Pan-African Congress 50
*Parable of Talents*145 – 6
Parkview Play School 176
Parnes, Sidney 174
Passow, A. Harry 88 – 9, 171; career of 199, 200, 203, 220 – 1, 222 – 9, 303; education of 221 – 2; Teachers College and 199, 203, 220, 221, 222, 223, 225 – 6
Passow, Deborah 222
Passow, Michael 222
Passow, Morris Boris Baruch 221
Passow, Ruth 222
"Passow Report" 225 – 6
Paul A. Witty Outstanding Literature Award 127
Paul A. Witty Short Story Award 127
Pawiak prison 185 – 6
Peace Information Center 51
Pearson, Karl 8, 14, 15, 16, 18, 105
Pedhazur, Elazar 211–12
perfectionism 193
Perry-Vauclase Psychiatric Hospital 32
personality 106, 189–90, 191
*Personality and Mental Health*167
Personality Development Pre-School 258
"Perspective through Retrospective for the National/State Leadership Training Institute on the Gifted and Talented" (Passow, A.) 224–5
Petty, Milan 233
The Philadelphia Negro (Du Bois, W.) 50
phrenology 64
Physiological Psychology Laboratory, Sorbonne 36
Piaget, Jean 32, 183
Piechowski, M.M. 187
Piedmont-Sardinia 24
Piéron, Henri 36
Pierron, Agnés 35
Pittsburgh, Pennsylvania 294–6
Pittsburgh Scholars 295
Plack, Virginia Greever 240
Planning for Talented Youth: Considerations for Public Schools (Passow, A., Goldberg, M., Tannenbaum, and French) 205–6, 221, 225

"Playmates for the Gifted Child" (Hollingworth, L.) 88
Plucker, J.A. 56
Poland 115, 181–2, 184–6, 195
Polish Academy of Science 186
The Polish Association of Mental Hygiene 186
polymath 16
Positive Disintegration (Dabrowski, K.) 187
Postal Service, U.S. 53
Potter, Bishop 48
poverty 44, 176–7, 228
P.Q. *see* progress quotient
Pratt Institute 242
Priestly, Joseph 9
Principia Biographia (Edel) 3
Principles of Education for the Intellectually Superior Individual (Ward, V.) 233
Proctor, Lillian Steele 131
progress quotient (P.Q.) 74
Project Implode 156, 157
Project Step-Up 284
Project Talent 200
Provenzo, E.F., Jr. 49
PS 16562, 89–90, 92, 96
psychiatrists 35, 36
psychiatry 185
psychoanalysis 183
Psycho-Educational Clinic, University of Kansas 119
"Psychological Bases of Self-Mutilation" (Dabrowski, K.) 183
psychological tension 189
psychology 61; architectural 145, 150; child 29; emotions and 190; in France 25; gender and 86–7; individual 6, 29; in World War I 61, 68; in World War II 115
psychometrics 68, 147
psychoneuroses 188–9, 190
Psychopathic Service, Bellevue Hospital 86
psychopathology 25
Pure Food and Drug Act 85

Quakers 102
Quebec Ministry of Health 187
*Quiz Kids*120, 124

racism 44–5, 48, 49, 54
Randall, C.M. 136
Raph, Jane Beasley 205, 208, 211–13
reading 126–7, 251
Reading and the Gifted and Creative Student (Witty, P.) 126
*Recommended Practices in Gifted Education: A Critical Analysis*239
regression 8
Renegal, William 220
Renzulli, J.S. 92, 171, 240, 298

Report to the United States Congress, 1972 *see* Marland, Sidney P., Jr.
Research on the Talented (Goldberg, M.) 205, 206–8, 213
response, instantaneous 26
Revue des Deux Mondes (Review of the Two Worlds) 26
Revue Générale des Sciences Pures et Appliquées (General Review of Pure and Applied Science) 30
Risk-Taking Scale 166
Robeson, Paul 51, 138
Robinson, Ann 238, 239
Rockefeller Foundation 183
Roe, Anne 148
Roeper, Annemarie 199
Roeper, George 199
*Roeper Review*88–9, 95
Roeper School 199
Rogers, Carl 94
Roid, G.H. 283
Roll Around Heaven (Meeker, H.) 286
Roosevelt, Theodore 289
Rorschach test 166
Rose, Mary Swartz 243
Rousseau, Jean-Jacques 70
Royal Geographical Society 18
Royal Geographical Society, Gold Medal 12
Rudnitski, R.A. 95
Runco, M.A. 174
Rush Medical College 119
Russel, James 244

Safter, Tammy 170, 175–6
St. Mark's Hospital 150
Salem College 236
Salpêtrière Hospital 24, 35–6
Salt Lake City, Utah 145
Sanford, Edmund 67
Sanford, Terry 234
SAT *see* Scholastic Aptitude Test
Sato, Irving 286, 298
Satterfi eld, Neil 170
S-B *see* Stanford-Binet Intelligence Scale
Scarborough Country Day School 119
Schelling, Friedrich Wilhelm Joseph 106
Schneider, Frank 157
Scholastic Aptitude Test (SAT) 299
*School and Society*126
School as Sorters: Lewis M. Terman, Applied Psychology, and the Intelligence Testing Movement 1890–1930 (Chapman) 69–70
*School Executive*224
School of Advanced Studies in Mental Hygiene 186
Schopenhauer, Arthur 70
Schumann, Robert 70

Scotland Yard 14, 18
Scott, Virginia 233
SDC *see* Systems Development Corporation
SDS *see* Student Development System
Seagoe, M.V. 64, 65, 66
The Search for Satori and Creativity (Torrance, E.P.) 170
Sears, R.R. 103, 104
Second International Congress of Mental Hygiene 184
segregation 51, 122, 133
segregation, by intelligence 91
self-concept 193, 246
self-employment 131
self-mutilation 182–3
Sherrington, Charles S. 189
Shockley, William 69
Shore, Bruce 4, 238, 239
Shriver, Sargent 296
Shumway, Grant 81–2
Shunley, Grant 81–2
Shunley, Margaret 82
Shunley, Ruth 82
SI *see* Structure of Intellect
Siegel, Shirley 222
Silberman, Charles E. 214
Silent Generation 199–200
Silicon Valley 69
Silverman, Linda Krieger 95
Simon, Théodore 32–3, 36
Sisk, Dorothy 170, 175, 284
Sixth Creativity Conference 148
Sixth World Conference on Gifted and Talented Children 223
Slater Fund 55
social adjustment 71, 88, 122, 250, 251–2
Socialist Party 51
social justice 215–16
Société Libre Pour L'étude Psychologique de L'enfant (The Free Society for the Psychological Study of the Child) 29–31
Society for Moral Culture 185
Society of Biology 24
socioeconomic class 93
A Socio-Psychological Study of African-American Children of Superior Intelligence (Jenkins, M.) 134
SOI *see* Structure of Intellect Institute
SOI Learning Abilities test (SOI-LA) 281, 282–5
Song, Anna 107–8
Song, R. 56
Sorbonne 24, 30, 36, 233
Sosniak, L.A. 56
The Souls of Black Folk (Du Bois, W.) 49, 53
South Carolina Mental Health Association 234

Soviet Union 51, 52, 105, 203
Spears, Jesse 68
special opportunity classes 91
Speyer School 52, 89, 90, 91–2, 96
spirits 29
Sputnik 1 203, 207, 263
Square Pegs in Square Holes (Broadley) 166
Staid Air Force base 166
Stanford, Leland 68
Stanford-Binet Intelligence Scale (S-B) 37, 73–4, 104, 133–6, 283
Stanford Late Maturity Studies 103
Stanford University 5, 68, 71; Department of Special Collections and University Archives 76; Green Library 102; Miles, Catharine, at 101, 103; Terman Archive 102, 107
Stedman, Lulu 74
Stekel, Wilhelm 183
Stetter, Fanny Berling 83
Stetter, John G. 81–2
Stivers, E. 225
Stockholm University 222
Strang, Ben 242
Strang, Ruth May: career of 125–6, 199, 201, 241, 242–53, 303; education of 241–2, 243
Strodbeck, Fred L. 214
Structure of Intellect (SI) 200, 207–8, 217, 277, 279–81
Structure of Intellect (SOI) Institute 277, 280, 285
The Structure of Intellect: Its Interpretation and Uses (Meeker, M.) 277, 280, 281
Student Development System (SDS) 152
"A Study of One Hundred Gifted Children" (Witty, P.) 121
suburbs 217, 292
suffering 183 , 189
suicide 183
"The Suppression of the African Slave Trade to the United States of America" (Du Bois, W.) 48
synesthesia 8, 15
"The Systematic Error of the Herring-Binet in Rating Gifted Children" (Hollingworth, L.) 88
Systems Development Corporation (SDC) 279

Taft, C. 155
TAG *see* The Association for the Gifted
Talented Tenth 6, 41, 53–7
The Talented Tenth (Du Bois, W.) 6
Talented Youth Project (TYP) 199; Goldberg, M., and 200, 203, 204–5, 220; Passow, A., and 199, 203, 220, 221, 222, 223, 225, 226; Tannenbaum at 220
Talent Outcome-Based Education (TOBE) 157
talents 144–5; of creative scientists 151; development of 157; multiple 155, 156–7; spotting of 134
Talents Unlimited (TU) 157
Talent Totem Pole 155
Tannenbaum, Abraham J. 203; at TYP 220; works by 92, 205–6, 213–15, 223–4
Taylor, Calvin W.: career of 116, 145, 146, 147, 148–58; education of 146, 147
Taylor, Craig 147, 148
Taylor, Elliott 145
Taylor, Mary 145

Taylor, Nancy 145, 147, 158
Taylor, Stephen 147, 148
Teachers College, Columbia University 202, 211; Goldberg, M., at 200, 203, 204–5, 220; Hollingworth, L., at 86, 87; Horace Mann-Lincoln Institute of School Experimentation 203, 205, 206–7, 209, 220, 222; Passow, A., and 199, 203, 220, 221, 222, 223, 225–6; Strang, R., at 241, 242, 244, 246; TYP at 199, 200, 203, 204–5, 220, 221, 222, 223, 225, 226
Teachers College Record 246
teaching 55–6, 119, 252
Teasdale, Sara 81
Tel-Aviv University 222
television 127
Terman, Frederick 66, 69
Terman, James 64–5
Terman, John 65, 66
Terman, Lewis 11, 20, 61, 64, 120; career of 62, 63, 67–76, 101–2, 103, 105, 106, 111, 121, 133; education of 65–7;
Termites 62, 68–9, 104, 207, 262
Terman Archive, Stanford 102, 107
Terman-Miles Masculinity-Femininity
Test 103, 111
Termites 62, 68–9, 104, 207, 262
Terre Haute, Indiana 116, 118, 131–2
Theman, Violet 122–3
Theory of Levels of Emotional Development (Dabrowski, K., and Piechowski) 187
theory of positive disintegration (TPD) 116, 182, 185, 187, 192–5
Thinking Creatively in Action and Movement (Torrance, E.P.) 168
Thorndike, E.L. 243
Thoughts and Aphorisms (Dabrowski, K.) 191
Thurstone, L.L. 144, 147
Titchener, E.B. 35
TOBE *see* Talent Outcome-Based Education
"To Be or Not To Be: A Case History" (Isaacs, A.) 262
The Toil of Existence (Dabrowski, K.) 191
Tomlinson, Carol 239
"Top 10% Plan" 53
Torrance, Ellen 164
Torrance, Ellis 163
Torrance, E. Paul 110, 148, 163; career of 116, 164–8, 169–78, 200, 261, 269; education of 164, 165
Torrance, James 164
Torrance, Jimmie Paul 163–4
Torrance, Pansy 167–9, 170, 176–7
Torrance Center for Creativity and Talent Development 170, 176
Torrance Tests of Creative Thinking (TTCT) 116, 168, 171–4, 176, 200
Tour, André de la *see* De Lorde, André
Toward Creating a Model Urban School System (Passow, A.) 225
Toynbee, Arnold 148
TPD *see* theory of positive disintegration
Treffinger, Donald 286
Trinity College 11
"The Truth Shall Set You Free" (Marland, S.P., Jr.) 292–3

TTCT *see* Torrance Tests of Creative Thinking
TU *see* Talents Unlimited
tuberculosis 66
Tulane University 234
Turner, Mrs. 15
Turrell, Mrs. 15
twins 20
TYP *see* Talented Youth Project

underachievement 213; attitude and 211–12; identifying 248; Isaacs, A., and 262–3; operationalization of 212, 217; social adjustment and 251–2
Understanding the Child 124
Union Point 164
United Nations 51
United States (U.S.): Air Force Survival Training Program 166–7; Army 146, 165, 166, 217, 222, 233, 291–2; Department of Education 136, 229, 285, 297; Employment Service National Research Program 147; Geodetic Survey team 146; HEW 296, 299; Justice Department 51; Postal Service 53; racism in 49; Veterans Administration 148, 165; *see also specific U.S. locations*
University of Akron 102
University of Alberta 187
University of Arizona 246
University of Berlin 48
University of California 52, 234
University of Chicago 119, 131, 146, 147
University of Connecticut 289
University of Geneva 183
University of Georgia 168, 170, 171, 177
University of Ghana 53
University of Istanbul 104
University of Kansas 119
University of Liberia 138
University of Massachusetts, at Amherst 5, 41
University of Michigan 165
University of Minnesota 110, 165, 167, 171
University of Nebraska 80, 83, 97
University of North Carolina 233
University of Pennsylvania 49, 50
University of Poznan 182, 183
University of Southern California 279
University of Texas 278
University of the State of New York 244
University of Utah 146, 148, 149, 150, 152–3
University of Virginia 233, 234
University of Warsaw 182
Upward Bound 297
Urban Institute, Morgan State College 137
urban life 214–15, 217

Valentine, Nebraska 83

Vaney, Victor 30–1
Van Steenberg, Neil 146
VanTassel-Baska, Joyce 228, 239
variability theory 86
Vassar, William 260, 263, 265
verbal versatility 144, 147
Veterans Administration, U.S. 148, 165
Vida, Oregon 285
Virginia Association for the Education of the Gifted 234
Virginia Center for Educational Development 234, 238
Virginia State College 132
visual imagery 15
vocabulary 126, 135
vocational guidance 250

Ward, Beatrice Eubanks 233
Ward, John Lewis 233
Ward, Rebecca 4, 232
Ward, Virgil Scott 4, 227; career of 200, 232–3, 234–40, 298; education of 233–4
Warsaw, Poland 184–5
Washburne, Carlton 293
Washington, D.C. 147, 225–6
WCG/TC *see* World Council on Gifted and Talented Children
webdubois.org 41, 42
Wechsler Intelligence Scale for Children (WISC) 283
Weiner, Ida 221
Westminster Abbey 20
"What of the Talented in Today's High Schools" (Passow, A., and Tannenbaum) 223–4
Whipple, Guy 68
White, W. Brent 237
White, W.L. 92
White House Conference on Children and Youth, 1960 200, 224, 260, 263
Why Fly? A Philosophy of Creativity, Multicultural Mentoring of the Gifted and Talented (Torrance, E.P., Goff, and Satterfield) 170
Wilberforce University 49, 53
Wiley High School 131
William Hall High School 290
Williams, E.J. 155
Williams, Frank 148, 286
Williams, Joseph 168
Williams, Robert W. 42
Williamson, Pauline 201, 244
Winnetka, Illinois 291, 292–4
Winnetka: The History and Significance of an Educational Experiment (Marland, S.P., Jr.) 293
WISC *see* Wechsler Intelligence Scale for Children
Witte, Karl 109
Witty, Margaret 118
Witty, Paul 5, 115; career of 116, 119, 120–7, 132, 134, 199, 205, 244, 246, 303; education of 118–19
Witty, Raymond 118
Witty, William 118

Wofford College 233, 234
Wolf, L.S. 107
Wolf, T.H. 23
Worcester, Massachusetts 206
World Council on Gifted and Talented Children (WCG/TC) 223, 229
World Peace Congress 138
World Peace Council 53
World War I 61, 68
World War II 115, 126, 181
Wundt, Wilhelm 61

X, Mr. 25–6
Xavier University 258
XYZ grouping model 110

Yale University 103–4
Yerkes, Robert 68

Zagórze, Poland 185, 186, 188
Zazzo, Réne 37
Zumwalt, Karen 202
Zuo, L. 173–4

FIGURE 1.1 Alfred Binet and his daughters, Madeleine and Alice (Private collection of Serge Nicolas)

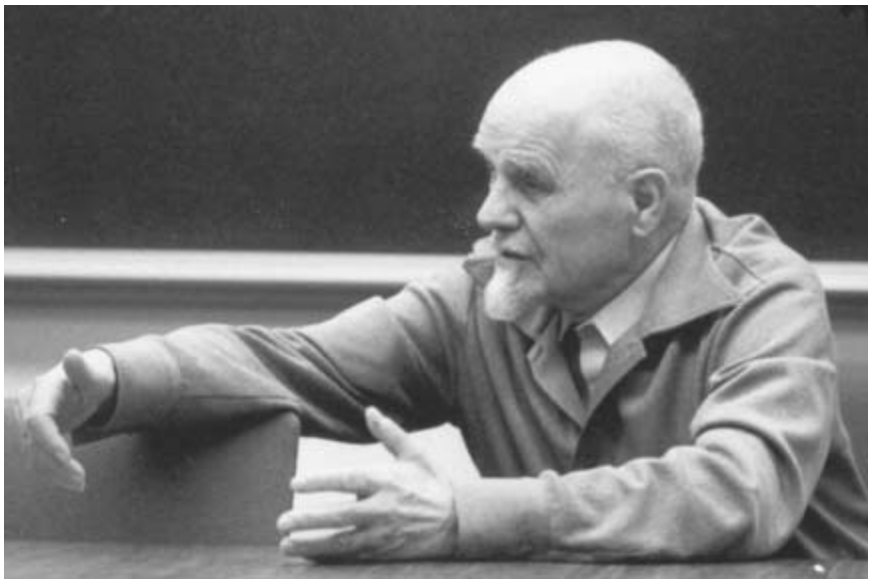

FIGURE 1.2 Kazimierz Dabrowski (Private collection of Sal Mendaglio)

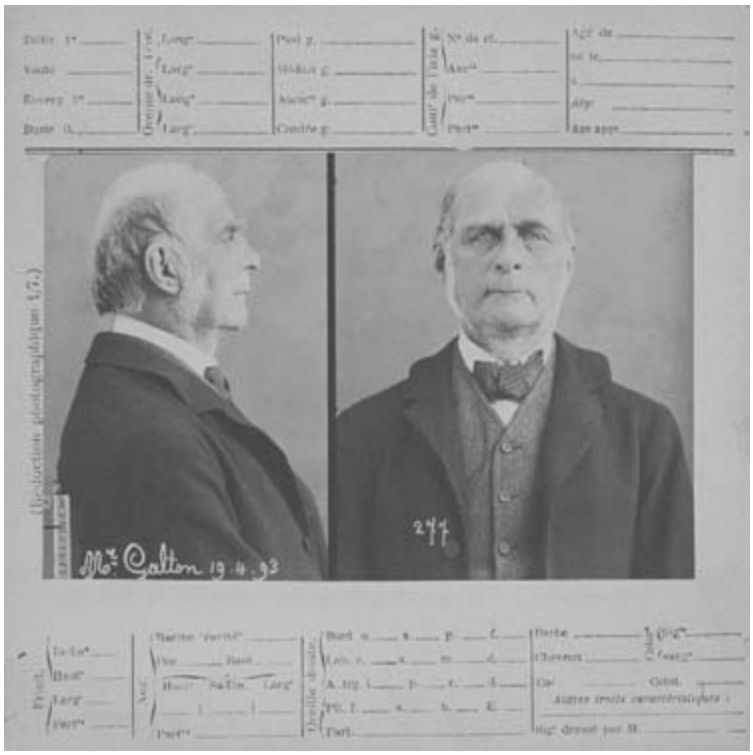

FIGURE 1.3 Francis Galton's card from Bertillon's Laboratory, 1893 (University of Central London)

FIGURE 1.4 Leta S. Hollingworth with students of Speyer School (Private collection of Kathi Kearney)

FIGURE 1.5 Ann Fabe Isaacs (National Association of Gifted Children)

FIGURE 1.6 Left to right: W.E.B. DuBois, Martin Jenkins, and Shirley Graham DuBois, 1960

FIGURE 1.7 Sidney P. Marland Jr. (Hoover Institute)

FIGURE 1.8 Catharine Cox (later Miles) with German children at an American Friends Service Committee feeding station (Archives of the History of American Psychology)

FIGURE 1.9 Three of four authors of *Planning for Talented Youth* at Passow's April 1991 retirement party (left to right: A. Harry Passow, Miriam Goldberg, and Abraham J. Tannenbaum) (Private collection of Marjorie Siegel)

FIGURE 1.10 Paul Witty (Northwestern University Library)

FIGURE 1.11 Cal Taylor (Private collection of Rebecca Odoardi)

FIGURE 1.12 E. Paul Torrance (Private collection of Tom Hébert)

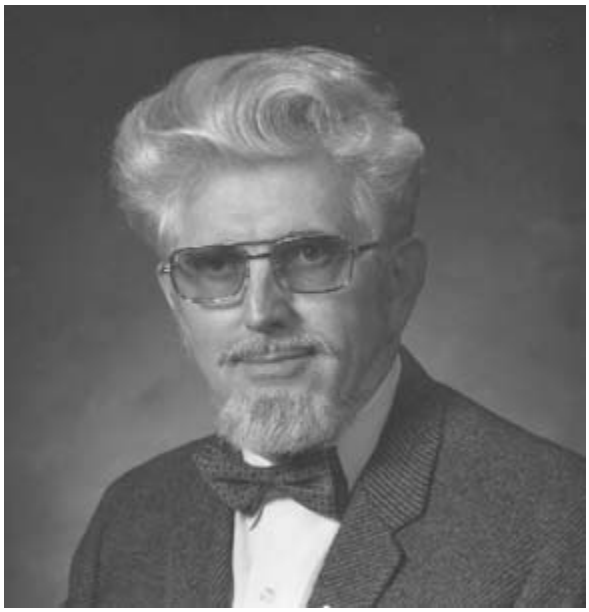

FIGURE 1.13 Virgil S. Ward (Private collection of Rebecca Ward)

FIGURE 1.14 Ruth May Strang (Gottesman Libraries, Teachers College)

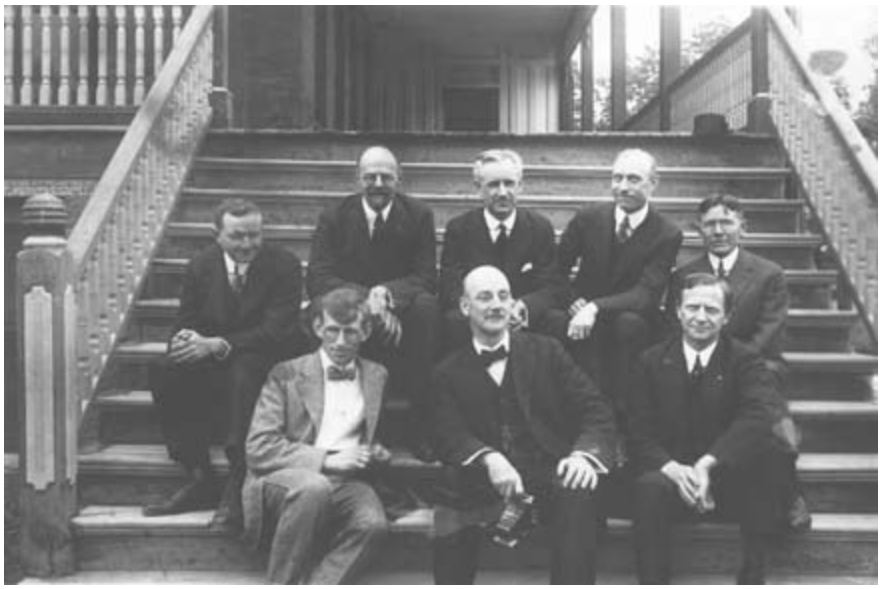

FIGURE 1.15 Committee on Psychological Exams, May 28, 1917, Gottesman Libraries, Teachers College (Back row, left to right: Frederick Wells, Guy M. Whipple, Robert Yerkes, Walter Bingham, and Lewis M. Terman. Front row, left to right: Edgar Dill, Henry Goddard, and Thomas Haines) (Archives of the History of American Psychology)

FIGURE 1.16 W.E.B DuBois, 1907 (Department of Special Collections and University Archives, W.E.B. Dubois Library, University of Massachusetts, Amherst)

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