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## **Leta Hollingworth: Birthmother of PG**

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Leta Stetter Hollingworth is undeniably the foremother of gifted education, as well as the psychology of giftedness. She wrote the first textbook, taught the first course, and served as the first counselor of the gifted. Carl Rogers was one of her students, and his “client-centered therapy” was modeled after Leta’s “child-centered therapy” (Kerr, 1990). Julian Stanley (1990) wrote that it was Leta who invented the concept of above-level testing for the profoundly gifted and served as the inspiration for today’s talent searches. She contributed 30 studies of the gifted that have withstood the test of time. *Children Above 180 IQ*, her best known work, remains the most in-depth study of profoundly gifted children. In addition to her germinal contributions to the psychology of giftedness, Leta is also revered as the “scientific bulwark” of the women’s movement. Her carefully designed studies demonstrated to an unbelieving world that females are equal in intelligence to males; these studies were essential to women being given the right to vote. Doesn’t that contribution alone seem worth remembering?

By the time she earned her doctorate in 1916, Leta Hollingworth had published 9 scientific papers on gender and intelligence, and her career path seemed well established. But in the same year, shortly after the *Stanford-Binet Intelligence Scale* was published, an event occurred that ignited a new passion. Leta was teaching a course on mental retardation at Columbia University Teachers College, and was demonstrating the new test with a child of “subnormal” intelligence. As a basis of comparison, she decided to test a “bright” child as well. “Child E” scored 187 IQ, one of the highest recorded IQ scores (Garrison, Burke & Hollingworth, 1917). From this moment on, her future was sealed. For the rest of her life, Leta passionately championed the gifted—particularly the profoundly gifted. She devoted her life to understanding and assisting this neglected population.

If you have never had the pleasure of reading Leta’s work, now is the time to begin. She is a forgotten pioneer. Without her, there would be no PG Retreat, nor much understanding of our children. Please share her work with teachers, counselors, and the media. Rediscovering Leta can help the world understand profoundly gifted children.

### ***What is Profoundly Gifted? A Historical Perspective***

The concept of profoundly gifted (PG) is the legacy of Leta Hollingworth. The *Stanford-Binet Intelligence Scale* (Terman, 1916) had just been released when Leta discovered the IQ test and began demonstrating it to her students. For most of the 23 years she used this scale, it had a standard deviation of 16 points. Leta set the bar for profoundly gifted at 180 IQ: 5 standard deviations (s.d.) above the mean. Nomenclature changed over time, and so did the standard

deviation. Today, the standard deviation of IQ tests is 15 points, and 5 s.d. above the mean is now 175 IQ.

In January of 1985, I invited a group of parents to the University of Denver who had children in the 160+ IQ range. The group named themselves “Parents of Gifted Offspring” (POGO) and we met monthly for two decades. Sponsored by the Gifted Development Center, we had a newsletter and a directory, and offered activities for children. POGO gave birth to PG Retreat. We now have a POGO listserv. Soon, Internet connected parents of children in this IQ range, and the term “PG” became popular—although its definition was a bit vague.

In 1993, Miraca Gross published *Exceptionally Gifted Children*. Her longitudinal study in Australia included children in the 160+ IQ range. This book established the nomenclature of *exceptionally gifted* for children above 160 IQ. Using Leta Hollingworth’s classification, Miraca reserved the term, “profoundly gifted,” for those above 180 IQ.

The only major IQ test capable of generating scores in the highest ranges was the *Stanford-Binet Intelligence Scale (Form L-M)*. Normed in 1960, it fell into disuse in 1991, when the *Wechsler Intelligence Scale for Children (Third Edition)* (WISC-III) was released. The ceiling of all Wechsler scales is 160 IQ, and it was nearly impossible to attain an IQ score above 155. How then, would we be able to find exceptionally or profoundly gifted children?

The Davidson Young Scholar Program needed to establish criteria for the profoundly gifted attainable on Wechsler scales. They set the bar for the *Wechsler Preschool and Primary Scale of Intelligence* (WPPSI) at 150 IQ for children under age 6, and the bar for the WISC was set at 145 IQ for children 6 – 16.

When he was the Project Director for the *Stanford-Binet Intelligence Scale (Fifth edition)* (SB5), John Wasserman sought to establish consistent nomenclature for the higher IQ levels. He conferred with an international group of experts, including Miraca Gross. The results of our year-long deliberations were published in John’s chapter on “Assessment of Intellectual Functioning” (Wasserman, 2003). The classifications are based on standard deviations from the mean, similar to classifications for children at the other end of the spectrum.

### Levels of Giftedness

<u>Level</u>	<u>IQ Range</u>	<u>Standard Deviations</u>
Profoundly Gifted	175 and above	+5 SD
Exceptionally Gifted	160 – 174	+4 SD
Highly Gifted	145 - 159	+3 SD
Gifted	130 - 144	+2 SD

(adapted from Wasserman, 2003, p. 435)

John had hoped that the SB5 would generate scores well above 175. These categories were established before the SB5 was released. Sadly, the SB5 rendered considerably lower scores than anticipated. The carefully constructed nomenclature never appeared in the manual.

In 2008, Pearson Assessment published extended norms for the WISC-IV. For the first time in the history of Wechsler scales, IQ scores could be generated beyond 160. Extended norms are in

process for the WPPSI-IV and WISC-V. But they are not integrated into the manuals, so they are not common knowledge. Nor has the nomenclature been adopted by the test companies: we are still suffering with “superior” (120 – 129 IQ) and “very superior” (130+ IQ) as the names of the higher ranges, topping out at 145.

So what, then, is PG? It can be anywhere between 145 and 180, depending on the test used, the scoring method, the organization or the individual designating the cut-off score. Sad, but true. Leta Hollingworth was the champion of children in all of these ranges, and her work is still relevant today.

### ***Educational Principles***

Children at the extremes of intelligence are often at risk in school. Leta became sharply aware of their vulnerability. She created exemplary programs, special classes for the highly gifted, techniques for teaching them effectively, and strategies for their affective development. Many of her educational principles are staples in programs for the gifted, and some in general education. Have you ever seen pictures of classrooms a century ago? Bolted desks, lectures and recitation. Here are the innovations Leta included in classes she designed for highly gifted students:

- Moveable desks
- Physical education
- Art and music appreciation
- Health and nutrition
- Modern languages
- General science
- Handicrafts
- Moving beyond the classroom (field trips)

### **Innovations in Gifted Education**

The following principles and practices are Leta’s contributions to gifted education:

- **Achievement as a function of opportunity**
- Providing opportunities for the gifted to engage with true peers in special programs
- Early identification of the gifted
- Use of multiple criteria for identifying the gifted
- Above-level assessment
- Child-centeredness
- Individualized curriculum: Adapting the school to the individual needs of the child
- Focusing on children’s strengths
- Recognition of, and provision for, asynchrony
- Emotional education grounded in the psychology of giftedness
- Combining acceleration and enrichment
- Reduction of drill in the curriculum
- Compressing (compacting) the required curriculum to half the school day
- Thematic learning
- Seminars: Student discussions
- Interdisciplinary education
- Education for creativity
- Education for leadership
- Independent and small group projects (according to student interests)

- Student-created curriculum
- The study of biography (particularly important for the highly gifted)
- Use of technology (typewriters, movie cameras)
- Moving beyond the classroom into the community
- Instruction in argumentation
- The teacher as scientist/practitioner: The importance of objective observation
- Multi-cultural perspectives

Despite opposition from the New York City Board of Education and the Dean of Teachers College, Columbia University, Leta insisted that her Speyer School program equitably represent the ethnic and racial distribution of New York City. Students were taught to respect diversity.

One strategy geared specifically to exceptionally/profoundly gifted children was instruction in argumentation. The tendency for these children to argue stems, in part, from their need for “*exactness* in all mental performances” and their “keen love of precise facts” (Hollingworth, 1927, p. 4). They cannot resist the temptation to set someone straight at the slightest loophole in a statement. This tendency appears to increase with higher levels of intelligence.

There is with intelligent children a stronger tendency to “argue” about what is required of them than is found with the average child. This tendency to argue as to the why and wherefore of a requirement is met both at home and at school, and calls for thought in proper handling on the part of parents and teachers. (Hollingworth, 1931, p. 10)

To cope with this characteristic, Leta introduced special training in “disputation” to the eight children who scored above 170 IQ at the Speyer School. This training program was designed and conducted by Dr. Herbert Carroll:

A training in forensics...covering the whole area of argument: argument with oneself, involving logic and the psychology of thinking; argument with others in private, involving etiquette and the art of polite disagreement; argument in public, involving parliamentary law, the rules of order, the nature of evidence, and the art of the persuasion of crowds. (Hollingworth, 1939, p. 585)

We would be wise to rediscover Leta’s training in the fine art of argumentation.

### ***Emotional Education***

As a clinician, researcher, and profoundly gifted person herself, Leta was able to enter the inner worlds of profoundly gifted children. She recognized their loneliness, their isolation, their imaginary worlds, their argumentativeness, their zeal for accuracy, their impatience with superficiality and foolishness, their desire to find like minds, their occasional resorting to “benign chicanery.” She found them fascinating, and she sought to understand each child’s personal experience—to learn from them. She prized the individual. She believed that life was very precious, talent was a blessing to be nurtured and shared for the good of others, and that people were to be cherished and helped.

An idea still novel today, Leta recommended “emotional education” for the gifted to help them deal with the special problems that beset them in their early years. She only listed five or six of these issues in any one article, but collectively she addressed 11 specific concerns:

- finding enough hard and interesting work at school
- adjusting to classmates
- being able to play with other children
- not becoming hermits
- developing leadership abilities
- not becoming negativistic toward authority
- learning to “suffer fools gladly”
- avoiding the formation of habits of extreme chicanery
- conforming to rules and expectations
- understanding their origin and destiny from an early age
- dealing with the special problems of being a gifted girl

### *Asynchrony*

Woven throughout Leta’s writings is the appreciation of the difficulties of developing unevenly. Her observations form the foundation of the modern theory of giftedness as asynchronous development (Silverman, 2013). The higher the child’s IQ, the greater the unevenness. Therefore, profoundly gifted children have much greater asynchrony than mildly gifted children.

To have the intelligence of an adult and the emotions of a child combined in a childish body is to encounter certain difficulties. It follows that (after babyhood) the younger the child, the greater the difficulties, and that adjustment becomes easier with every additional year of age. The years between four and nine are probably the most likely to be beset with the problems mentioned. (Hollingworth, 1931, p. 13)

The physical differences between a child of six whose IQ is 150 and children of nine years (whose mental age corresponds to his) are unbridgeable, and so are the differences of taste, due to differences in emotional maturity. (Hollingworth, 1931, p. 13)

### *Unchallenging School Curriculum*

You will be well rewarded by perusing Leta’s original works. They contain rich anecdotal material about the thought processes of profoundly gifted children.

A case in point is that of a six-year-old boy of I.Q. 187, who was reported as too immature for the work of the first grade, because he would not attend to the lessons given, but would “go off by himself, lie down on his back, and look up at the ceiling.” This child’s “mental age” was twelve. He could read as well as sixth grade children ordinarily can, according to standard tests. He could perform all the fundamental processes of arithmetic, could square numbers and could read numbers to the billions. Bored with the material being presented to beginners, yet not knowing how to formulate his difficulty, he simply drifted away from the teacher and the group, as his childish solution of the situation. When asked what he did lying on the floor, he said, “Oh, mostly mathematical calculation, or my imaginary land.” (Hollingworth, 1930, p. 443)

Leta discovered that gifted children typically had so many interests and capabilities that they were likely to spread themselves too thin and be unable to finish all their projects or attain a level of perfection that suited them.

### *Social Relations*

“The more intelligent a person is, regardless of age, the less often can he find a truly congenial companion.” (Hollingworth, 1942, p. 253)

Many of the profoundly gifted children Leta studied developed habits of solitary play, not because they were unfriendly and ungregarious by nature but, rather, because their efforts to relate to others were quickly defeated. Other children did not share their interests, vocabulary, or the same desire to organize their activities.

Only one child in six that Leta found above 180 IQ related well to other children and had typical play interests in childhood. The other five “were unpopular with children of their own age because they always *wanted to organize the play* into a complicated pattern, with some remote and definite climax as the goal.” (Hollingworth, 1931, p. 7)

Whereas children above 170 IQ often showed uncommon play interests, children in the 130 to 145 range tended to share the interests of other children. Leta concluded that one reason for moderately gifted children's adjustment in play was that they seek and are accepted by older playmates. They tend “to play with others *of like mental age*.” (Hollingworth, 1926, p. 136)

### *Leadership*

Just before the outbreak of World War II, Leta predicted with uncanny accuracy: “The times cry out for leaders to guide the people safely in a world where, without vision, more people will perish in more different ways than have ever perished before” (written in 1938 as a speech, published in 1939, p. 575).

Leta believed that high intelligence is a requisite of leadership: “No one has ever advocated stupidity as a qualification for a leader.” Other traits are needed as well: “integrity, independence, originality, creative imagination, vitality, forcefulness, warmth, poise, and stability” (The Development of the Harvard National Scholarship Plan, 1936-1937, as quoted in Hollingworth, 1939, p. 577). To these traits Leta added “audacity, capacity for nonconformity, the love of beauty, and cold courage.” She believed that there was a high correlation between these personality traits and giftedness. She also noted parenthetically, “(I would say there cannot be a very high intelligence without a love of beauty)” (p. 578)—an observation I have found particularly thought-provoking.

A special problem that besets the gifted is that in order to be selected as “a leader of his contemporaries, a child must be more intelligent, but *not too much more intelligent*, than those who are to be led” (Hollingworth, 1942, p. 581). Leta (1926) observed that a group having an average IQ of 100 would most likely choose a leader whose intelligence was in the range of 115 to 130 IQ. A child having an IQ of 160 would be an unlikely choice for leadership in such a group but could become a leader in a gifted group having a mean IQ of 130. Children in the 125

to 155 range are “enough more intelligent than the average to win the confidence of large numbers of their fellows, which brings about leadership, ... but those of 170 IQ and beyond are too intelligent to be understood by the general run of persons with whom they make contact” (Hollingworth, 1942, pp. 264-265).

### *Negativism Toward Authority*

Negativism toward authority tends to develop when profoundly gifted children perceive those in authority as illogical, irrational, erroneous, or unjust. “It is especially unfortunate, therefore, that so many gifted children have in authority over them persons of no special fitness for the task, who cannot gain or keep the respect of these good thinkers” (Hollingworth, 1942, p. 261). In some cases, gifted children may rebel against all persons in authority because of earlier negative experiences. If they are mishandled in their youth, some gifted individuals become incapable of dealing with subordination of any kind. Because some form of subordination usually precedes leadership positions, their contentiousness might render them ineffectual in the work world. Negativism and cynicism can seriously hamper one's career goals. Fortunately, Leta noted that gifted children are endowed with a keen sense of humor and, in most cases, with maturity, they seem to be able to surmount cynicism (Hollingworth, 1942).

### *Suffering Fools Gladly*

A lesson which many gifted persons never learn as long as they live is that human beings in general are inherently very different from themselves in thought, in action, in general intention, and in interests.... This is one of the most painful and difficult lessons that each gifted child must learn... It is more necessary that this be learned than that any school subject be mastered. Failure to learn how to tolerate in a reasonable fashion the foolishness of others leads to bitterness, disillusionment, and misanthropy. (Hollingworth, 1942, pp. 259-260)

It is ironic that this important piece of Leta's wisdom has been so misunderstood in modern times. We put the emphasis on the “fools” and become offended, whereas Leta's emphasis was on the “gladly,” as this next passage clearly indicates: “The highly intelligent child must learn to suffer fools gladly—not sneeringly, not angrily, not despairingly, not weepingly—but ‘gladly,’ if personal development is to proceed successfully in the world as it is” (Hollingworth, 1939, p. 586). An essential responsibility of special programs for the gifted, in Leta's thinking, is to teach these children tolerance and how to handle the apparent foolishness of others with patience and love. Therefore, it was a major part of her “emotional education.”

### *Benign Chicanery*

Leta condoned “benign chicanery” as a necessary skill for self-protection of the gifted. Gifted children tend to be honest and straightforward with their thoughts—often to their detriment. Learning when “not” to tell the truth is an important skill to be mastered. “Perhaps the arts of benign chicanery are absolutely necessary to a child of highest intelligence, compelled to find his spiritual way through mass education.” (Hollingworth, 1939, p. 589)

Guidance in regard to this matter of chicanery is absolutely necessary. Here we have one of the most delicate of all aspects of the training of a leader. By

teaching these children that they should at all times act with complete candor and straightforwardness, in all sorts of company, shall we be educating them for self-destruction? (Hollingworth, 1939, p. 589)

### *Origins and Destinies*

One of the conspicuous symptoms of intellectual acumen, according to Leta, is early interest in origins and in destinies. “Where did the moon come from?” “Who made the world?” “Where did I come from?” “What will become of me when I die?” “Why did I come into the world?” (Hollingworth, 1931, p. 11). Leta observed that children do not begin to require logically coherent answers to these questions until they reach the mental age of 12 or 13 years of age. She discovered that religious ideas and needs also originate whenever these children develop to a mental level past 12 years of age. The higher the IQ, the earlier the child develops a pressing need for an explanation of the universe. In cases of children who tested above 180 IQ, a desire for a systematic philosophy of life and death developed when they were only 6 or 7. Problems of good and evil plague the gifted at an early age. They are also interested in an explanation of reproduction at a “tender age” (Hollingworth, 1931, p. 12). Gifted children's asynchronous development leads to difficulties unlike those of other children.

Intellectually they are adolescent, but their emotional control and physical powers are still very young. Problems of right and wrong, and evil in the abstract, become troublesome for very highly gifted children. They have the awareness but not the emotional maturity to deal with their awareness. (Hollingworth, 1931, p. 12)

### *Gifted Girls and Gifted Women*

At the intersection between Leta's earlier work on equality of opportunity for women and her passion for the gifted lies her appreciation of the plight of gifted girls. Leta was a powerful spokesperson for both gifted girls and gifted women.

The intelligent girl begins very early to perceive that she is, so to speak, of the wrong sex. From a thousand tiny cues, she learns that she is not expected to entertain the same ambitions as her brother. Her problem is to adjust to a sense of sex inferiority without losing self-respect and self-determination, on the one hand, and without becoming morbidly aggressive, on the other. This is never an easy adjustment to achieve, and even superior intelligence does not always suffice to accomplish it. The special problem of gifted girls is that they have strong preferences for activities that are hard to follow on account of their sex, which is inescapable.

Stated briefly, “the woman question” is how to reproduce the species and at the same time to work, and realize work's full reward, in accordance with individual ability. This is a question primarily of the gifted, for the discontent with and resentment against women's work have originated chiefly among women exceptionally well endowed with intellect. (Hollingworth, 1926, pp. 348-349)

## *Conclusion*

Leta Hollingworth was dearly loved by her students and by the children she studied throughout her lifetime. Though she was a zealous scientific researcher, she never lost sight of people as individuals, and she devoted her life to helping people. In her autobiographical sketch, she summarized her life's work as follows:

I have published four textbooks and parts of others, but the bulk of my writing is in original studies, published in educational and psychological periodicals. There are about eighty of these and they deal for the most part with the psychology and education of highly intelligent and gifted children. I consider this one of the most important of all problems for the development of social science—the problem of how to recognize, how to educate, how to foster and how to utilize the gifted young. (Hollingworth, 1940, p. 34)

Leta Hollingworth's insights are remarkably current. She would be pleased to know that apathy toward the gifted is finally waning, and the world is ready to hear what she had to offer. She deserves to be remembered by all of us who share her passion for profoundly gifted children.

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