

Brains Unlimited: Giftedness and Gifted Education in Canada before *Sputnik* (1957)

Jason Ellis

University of British Columbia

Abstract

This study's purpose is to sketch, using the historical method, the development of ideas about giftedness and programs for gifted children in Canadian schools, from the nineteenth century to the launch of the Soviet satellite Sputnik in 1957 that reignited interest in gifted education. The author notes that historians have paid scant attention to giftedness. The author argues that giftedness and gifted education in Canada developed in three historical phases prior to 1957. Rationales for gifted education today are discussed in light of the historical legacy.

Keywords: giftedness, gifted education, gifted children, history of education, special education

Résumé

Le but de cet étude est d'ébaucher, à moyen de la méthode historique, le développement des idées sur la surdouance et la formation pédagogique des surdoués dans les écoles canadiennes du 19^e siècle jusqu'à 1957 et le lancement du satellite soviétique Spoutnik, ce qui signala un intérêt accru pour la formation des surdoués. Les historiens n'ont écrit que peu sur la surdouance. L'auteur présente l'hypothèse que la surdouance et les programmes scolaires pour les surdoués paraissent en trois époques antérieur à 1957. L'article termine en discutant la formation des jeunes surdoués aujourd'hui à la lumière de l'histoire.

Mots-clés : surdouance, surdoués, jeunes surdoués, histoire de l'éducation, éducation de l'enfance en difficulté

Introduction

The Soviet Union's successful launching into orbit of the *Sputnik* satellite in October 1957, before the United States could accomplish this space-age feat, realized one of the worst fears of many people in the West, including Canadians: the Cold War foe was capable of scientific and technical achievements that surpassed Western ones (Urban, 2010; Cole, 2013; Oworm, 1996; Tomkins, 2008; Low, 2002; Terzian, 2013). But if *Sputnik* caught the Canadian public off-guard, it could rest assured that the nation's schools were up to the job of bringing the Free World back to the head of the Space Race. Or at least this is what W. T. MacSkimming, chief inspector of Ottawa's public schools, believed. "Reactions to the launching of the Russian satellites in 1957 were many and varied," he reported (Ottawa Public School Board, 1958, pp. 11–13). Among them "was a demand for drastic measures to combat 'the crisis in education.'" MacSkimming countered, "There is no crisis." Schools had been preparing for years for Soviet competition, he said. Listing achievements in Ottawa public schools that would enable them to train a generation of students who would retake the West's "former supremacy" (pp. 11–13), MacSkimming was careful to mention one of the most important recent developments—the separate classes for gifted children that the board of education had just opened in 1956.

Jennifer L. Jolly (2009) has argued that, in the United States, "a revived interest in gifted education materialized later in the postwar years and climaxed with the Soviet launch of *Sputnik*" (p. 39; see also Terzian & Rury, 2014). Interest picked up in the 1950s in Canada as well (Fleming, 1971). But the story of giftedness, and of gifted education programs, goes back much further in time than this. Margolin (1994) and Winzer (2009) looked at gifted education's early history in the United States. In Canada, historians of education have written practically nothing at all about the history of gifted education in any period. The exceptions are Elizabeth Smyth's (1984) brief overview of historic trends in Ontario and James Onusko's (2014) discussion of gifted youngsters in the Calgary suburbs in the 1950s and 1960s. My research contributes to the history of education literature by describing in detail the origins and advance of gifted education in Canada before *Sputnik* and the renewed interest in giftedness that accompanied the satellite's launch. But more than that, it suggests early gifted education's connections to other historical changes of interest to educational historians and scholars generally, notably developments in special education, educational psychology, progressive education, and eugenics.

Methodology

We historians seldom describe our methods as transparently as other scholars do (Stearns, 1984). Perhaps if we want our colleagues in education fields to use our research, we should state our methodology clearly, especially when we think—as I do—that what we have to say bears on their work in the present (Aldrich, 2003; Cuban, 2001). As a historian of education, I collect a body of evidence, examine it for signs of change over time (and of continuity)—locate change’s causes and effects—and use my findings to form an account of the past. This is otherwise known as applying the historical method. For this study, I gathered evidence from eclectic primary historical documents that I located researching giftedness and gifted education systematically in archives and university library collections. Knowing that I would never achieve a comprehensive body of information, because it is usually impossible to look everywhere that evidence might be found, I tried for representative coverage. In the documentary evidence that I found, there are articles from publications geared toward educators—for example, from the Ontario-based but nationally distributed teacher magazine *The School* (Christou, 2012). There are also articles from psychology, medical, and education journals that professional authorities on giftedness contributed to. Published material reveals accepted ideas about giftedness prevalent at different points in time. It also discloses clues about programs, curricula, and teaching practices in place for gifted children in schools across the country. Giftedness was a topic for a handful of Canadian educators who completed graduate degrees prior to 1957, and the theses they wrote offer first-hand accounts of gifted children and programs from a slightly different perspective than that of the arm’s-length expert. Along with publications and theses, I used annual school board reports, minutes of school trustee meetings, and research studies put out by school districts as additional sources of information.

Based on my considered analysis of this material, and in light of the findings of other historians (secondary sources), I formed my argument about the chronological advance of giftedness and gifted education in Canada. That argument is that they evolved in three partly overlapping phases. In phase one, covering a long span of time up to about 1910, people initially regarded exceptionally bright children as curiosities. Closer to the turn of the 20th century, medical experts developed more specialized knowledge about them, coming to believe that precocious children were susceptible to mental disease. However, educational psychologists had yet to set their definition of giftedness and there

were no curricula or school programs specifically for gifted children. In phase two, lasting from approximately the 1910s to the mid-1920s, psychologists and intelligence testers formally defined giftedness for the first time. Eugenicists took an interest in gifted children in this period, as a source of what they called good “racial stock.” This expression was saturated with racial and class bias. (It should also be said that giftedness experts—across the period I studied—took it for granted that the typical gifted child was male.) In the second phase as well Canadian school systems, acting on the progressive education credo of fitting the school to the child, introduced the first formal policies, programs, and classes specifically for the gifted. Phase three unfolded from the mid-1920s to the late 1950s. In this phase, interest in gifted youngsters as a national human resource mostly supplanted the older eugenic interest in them for their supposedly superior biological traits (though racial and class prejudices remained); psychologists now checked the gifted for signs of maladjustment, believing the group was especially prone to it; and, nearer the end of the period, gifted children were drawn into the rhetorical backlash against progressive education. Giftedness—as an educational concept—was historically contingent from the beginning, never timeless or naturally occurring but rather an idea bound by the shifting values of those who redefined it over time.

In the conclusion, I address myself directly to education scholars who are not historians. I take up historical ideas about giftedness that I believe still remain lodged in present-day notions about gifted children and their education. To the extent that I am able to demonstrate that some of these ideas came from dark origins, or from debunked educational science, I hope that other researchers will use that knowledge as a departure point for raising their own productive, critical questions about gifted education in the present.

Phase One: Giftedness Prior to 1910, from Prodigies to Precocity

Before there were gifted children, there were child prodigies. In the 17th and 18th centuries, people looked on prodigies as curiosities. Genius was not generally a medical concern or even really an educational one (Darmon, 1979; Kett, 1978). This began to change by the 19th century, with increasing worry that childhood precocity was unnatural or unhealthy. By the 1830s, Victorian moral advice literature warned against precocity’s

dangers and suggested ways to curtail it. An article in *Common School Journal* in 1843 advised educators and parents, “If a child exhibits any symptoms of precocity, it should be taken immediately from books and be permitted to amble and play in the open air, or engage in manual labour” (cited in Kett, 1978, p. S185). Victorian moralists looked to educators and philosophers such as Rousseau, Pestalozzi, and Froebel, who argued that too much book learning was bad for children. The Victorians also had their own theory about precocity’s dangers. They believed that human beings possessed finite energies and that expending too much vital force on developing the mind cut off the needed supply to other parts of the human system (Kett, 1978).

By around the turn of the 20th century, precocious children had become a growing medical concern. Similar to what educational psychologists would later claim about psychologically maladjusted gifted youngsters, authorities on precocity at the turn of the 20th century believed that brilliance made young people especially susceptible to mental problems. As written tests and rigid standards occupied a growing place in American schooling after the Civil War, sensational stories about “over-study” appeared in the press, leading to rounds of condemnation by educators, phrenologists, and others. These stories dubiously claimed that too much study caused problems as severe as coma and “congestion of the brain” that led to death in some cases (Reese, 2013, pp. 195–198). A famous early criminologist named Cesare Lombroso wrote in 1905 about how precocity caused a form of criminal behaviour he called “moral insanity” (cited in Kett, 1978, p. S185). G. Stanley Hall, the pioneering developmental psychologist and author of the book *Adolescence* published in 1904, warned about precocity as well. He bought into the saying “early ripe, early rot” (cited in Kett, 1978, p. S183) and thought that precocity perverted natural laws of child and adolescent development by accelerating their normal stages. Hall attributed a rise in precocity to a decadent, modern urban society that overstimulated the senses. He blamed precocity in turn for sexual vices like masturbation. And he praised, by contrast, rural settings as austere and contributing to virtuousness and self-denial.

In Canada at the turn of the 20th century, the country’s leading “alienist” (as psychiatrists were once called), Charles Kirk (C. K.) Clarke (Dowbiggin, 1997), led the charge against dangerous precocity, through his diagnosis of cases of “dementia praecox” (Clarke, 1906). This was a serious mental disorder that the German alienist Emil Kraepelin identified between 1896 and 1899 (Noll, 2011). Kraepelin described dementia praecox

as afflicting mostly males, usually appearing when they were between 16 and 22 years of age. Its onset began with an “episode” of bizarre behaviour, followed by deteriorating cognition leading to permanent disability with no hope for recovery. Poorly understood and alarming, dementia praecox was “the terminal cancer of mental diseases,” historian and psychologist Richard Noll (2011) writes, and “perhaps the most discussed mental disease of the first half of the twentieth century” (pp. 4–5). Clarke (1922) maintained that very bright children were especially susceptible to it. “Precocious children, urged to live up to their ‘I.Q.’s’ almost invariably ‘sky-rocket’ with great brilliancy and then come down like the proverbial stick.” Pushed too hard by their teachers, they would suffer a “mental attack” (p. 15), descending into psychiatric illness afterward.

Phase Two: The Arrival of Giftedness and Eugenics, 1910–1925

Clarke’s idea that brilliant children were prone to dementia praecox soon became out-moded as educational psychologists debunked this sort of theory in the 1910s and 1920s. Under the influence of Stanford University’s Lewis Terman and Columbia’s Leta Stetter Hollingworth, “precocity” became “giftedness,” defined principally by a child’s high intelligence quotient (I.Q.) scores (Margolin, 1994; Winzer, 2009). “There is no shred of evidence,” Terman (1926) wrote in his book *Genetic Studies of Genius*, “to support the widespread opinion that typically the intellectually precocious child is weak, undersized, or nervously unstable” (p. 634).

Eugenics was crucial to giftedness’s evolution in this period. Francis Galton coined the term “eugenics” in 1883 (Kevles, 1985). It consisted of the belief that mental, physical, moral, and other traits, both desirable and undesirable, were passed on biologically from generation to generation. By intervening in the process, either by encouraging the reproduction of the fit, or discouraging that of the unfit, social engineering could over time improve the quality of the human race (Dyck, 2013; McLaren, 1990). Intelligence testers and others that eugenics influenced, not least of all educators, talked about gifted children as genetically superior. They believed that cultivating gifted youngsters’ minds would help meet eugenic goals. W. D. Tait, a McGill University psychologist, wrote in a 1921 article that special classes for “the supernormal” were necessary because of “the importance of building up a high grade racial stock.” He would add, “The salvation of the

race depends upon the salvation of the gifted child and the elimination of the defective” (pp. 271–272). Indeed, Canadian psychologists and a few educators in the 1910s and 1920s also advocated for special education classes to identify so-called “mental defectives,” to be segregated in custodial farm colonies that would prevent them from reproducing (Ellis, 2013).

Eugenicists’ ideas about intelligence were inseparable from their claims that it was both inherited and fixed at birth—and from their unapologetically supremacist theories about its distribution among races and classes. The conclusion Terman (1926) reached about the “racial and social origin” of gifted children was “that the heredity of our gifted subjects is much superior to that of the average individual.” By “superior,” he meant that gifted children were more likely to be white and had considerably less “Latin and negro ancestry” (pp. 3–6). They came disproportionately from the highest social classes, lived in better neighbourhoods, and had more highly educated parents. (Terman and others were careful never to say that the gifted were exclusively white or well-off, only that they hailed disproportionately from these origins [Margolin, 1994].) Terman did not attribute gifted children’s high I.Q.s to the environmental or artificial advantages they enjoyed. He even refuted these explanations of giftedness. About class, he stated:

It has often been argued that this superiority in achievement should be credited for the most part to the larger opportunity for achievement enjoyed by members of the favored classes. *Our data show that individuals of the various social classes present these same differences in early childhood, a fact which strongly suggests that the causal factor lies in original endowment rather than in environmental influences* [emphasis in original]. (p. 66)

And about race, Terman (1926) remarked that while “language handicap and...other environmental factors” probably had some unknown effect on the “inferiority” that “Latin groups” (Mexican, Italian, and Portuguese) demonstrated through I.Q. tests, “the true causes lie deeper than environment” (p. 57; see also Margolin, 1994).

There were no Canadian studies of genius to match Terman’s expansive American work, only a few smaller surveys of the intelligence of general populations (Sandiford & Kerr, 1926; Munro, 1926). Many Canadian psychologists and educators in the 1910s and 1920s, however, accepted the science of I.Q. and what it purported to say about the nature and origin of intelligence, as well as its distribution along racial and class lines (Ellis,

2013). W. D. Tait (1921) thought that domestic-born Canadians contributed greater numbers of geniuses than immigrant populations did. Repeating a perennial Canadian concern about out-migration (or “brain drain”) to the United States, he wrote that “we are losing a considerable amount of our native born people (the better type on the whole) and filling the country with inferior types and then expect to have a great country” (p. 273). W. L. Grant (1928), principal of the private and exclusive Upper Canada College, said unabashedly that Canadian schools were not nurturing the nation’s brightest. The result was that “there are a few distinguished personalities in Canadian life at present, but all too few; the present conversation at the average club or dinner table is too often dull or lacking in distinction” (p. 374).

In 1926, P. F. Munro conducted one of the few larger-scale intelligence surveys of Canadian schoolchildren, testing the I.Q.s of over 500 pupils at the school where he was principal. Munro intended his study, *An Experimental Investigation of the Mentality of the Jew in Ryerson Public School Toronto*, to discover any differences in intelligence between Jewish and non-Jewish pupils. (The school’s population was 80% Jewish.) Munro’s conclusion was that “taken as racial groups...the Jews are slightly superior.” He also noted, however, that “although Ryerson Gentiles have a slightly greater percentage in the extremely bright class listed in our classification as ‘geniuses,’ yet the Jews surpass them in groups styled ‘superior,’ and ‘very superior’” (p. 54).

Canadian I.Q. survey results—where they did exist—did not always align with preferred theories about race and intelligence. Peter Sandiford, a professor of educational psychology at the University of Toronto, and Ruby Kerr, of the Vancouver school board’s psychological clinic, surveyed the I.Q.s of 500 Chinese and Japanese Canadians in Vancouver public schools in 1924–5 (Sandiford & Kerr, 1926). They called the results “somewhat surprising, even startling” (p. 363) because both groups recorded higher I.Q. scores than white children. Sandiford and Kerr (1926) could explain away these results, which they saw as discrepancies, only very dubiously. “The superiority is undoubtedly due to selection. In the main it is the Japanese and Chinese possessing the qualities of cleverness, resourcefulness and courage who emigrate to British Columbia; the dullards and less enterprising are left behind” (p. 366).

Educators in the 1910s and 1920s justified school programs for the gifted with a progressive education argument that historian Theodore Christou (2012) has shown was becoming increasingly popular by this time: the curriculum should be tailored to

the needs of the child. Or, as W. L. Grant (1928) put it, “it is then a question of suiting the education to the child, and of devising a brilliant education for the brilliant child” (p. 372). In this logic, gifted children, by virtue of their exceptionality, deserved special programs just as much as any other exceptional group, such as children with disabilities or learning difficulties. Toronto public school trustee Edith L. Groves remarked in 1919, “If the defective children of the ungraded [special education] classes are worthy of a course of study peculiarly adapted to their limitations certainly an enriched curriculum ought to be provided for children whose capabilities extend...to the highest degree of attainment” (Toronto Board of Education, 1919, pp. 749–750). W. D. Tait (1921) was just one of the gifted education advocates to go as far as to argue that gifted children were underserved by a curriculum weighted in favour of the less intelligent; or, as he put it, that “the super-normal or gifted child is not receiving his just recognition in our school systems partly because of the efforts on behalf of the defective child” (p. 270).

Implementing Gifted Education in Canadian Schools: Different Policy Models, ca. 1920–1957

As Smyth (1984) has noted, in one province (Ontario) legislation and regulations permitting special classes for gifted children existed as early as 1914. By the 1920s, school boards across the country were developing their first gifted education policies based on I.Q. testers’, psychologists’, and educators’ ideas about giftedness. Three policy models dominated early Canadian efforts: acceleration, enrichment, and separate classes (Smyth, 1984; see also Jolly, 2009). The model used most often was acceleration. In this approach, gifted youngsters either skipped one or more grades altogether, or, more commonly, completed the work of two grades in a single school year. The least formal of the three policy models, often all that acceleration needed was a principal’s or a teacher’s decision to skip a child ahead. In small rural schools, where grades were usually mixed anyway, acceleration was often the only option available (Laycock, 1955). In some places, though, it relied on the existence of a special class where students could compress the work of two grades into a single school year. Ottawa public schools practiced acceleration in this manner, for many years offering special classes that permitted students to complete Grades 3 and 4 in one school year (Ottawa Public School Board, 1958). By 1953, 27 school systems nationwide reported the practice of accelerating gifted

pupils (Dunn & McNeil, 1954). Acceleration, however, was not exclusive to the gifted. In Ottawa, by 1956, more than 60% of public school board students completed Grades 3 and 4 this way. Any child capable of handling the work was permitted to accelerate (Ottawa [City of] Public School Board, 1956). Sault Ste. Marie Collegiate was one of the rare high schools to formally accelerate some gifted students, adopting this policy in 1955 (Sparling, 1958). All types of gifted programming were much more commonly found in elementary than in secondary schools (Smyth, 1984).

In the second policy model, enrichment, gifted children remained in the same grades and classrooms as ordinary pupils. Teachers there offered them augmented activities as a selected group (Laycock, 1942). A few Toronto public schools began to offer this form of gifted education to high I.Q. students in the late 1920s (Toronto Board of Education, 1928, 1930); however, the board would not institute enrichment on a wide scale until the 1957–8 school year (Laughlin, 1958). Ottawa public schools started employing enrichment extensively around 1942, and possibly earlier (Ottawa [City of] Public School Board, 1956). To identify pupils who qualified for an enriched curriculum, the Ottawa Public School Board drew on its psychological testing service, probably the most comprehensive service anywhere in Canada (Wright, 2002). Beginning in 1931, Ottawa public schools tested the I.Q. of every single one of the system's Grade 5 pupils. In 1942, the board grew the program and tested, twice per year, every child in Grades 1, 3, 4, and 6 (Ottawa [City of] Public School Board, 1956). The service shared I.Q. test results with classroom teachers, including lists of gifted pupils in their rooms. Teachers were supposed to give identified boys and girls an "enriched curriculum within the grade" (Dunlop, 1947, p. 91). By the 1950s, 12 Canadian school systems used an enrichment model to address gifted pupils' needs (Dunn & McNeil, 1954).

In enrichment programs, enhancements typically consisted of subjects associated with cultural refinements, such as drama, French, literature, and debate. Augmented extracurricular activities, such as a junior Red Cross club or producing the school newspaper, were also used as enrichment, as were field trips (Rogers, 1932; Laycock, 1940; Toronto Board of Education, 1954; Matheson, 1936). Teachers only seldom enriched the curriculum by making it more difficult (Matheson, 1936; Toronto Board of Education, 1954). Enrichment did not have to rely on I.Q. testing and did not have to occur in large, well-resourced urban boards either. One of Canada's leading experts on gifted education, University of Saskatchewan psychologist Samuel R. Laycock, pointed this out in a 1955

article in *Canadian Education*.¹ Laycock encouraged rural teachers to identify gifted pupils in their classes and to enhance their studies by procuring them extra reading material or assigning large independent projects.

The third and final policy model was a system of separate special classes that enrolled only gifted children. This was the model that Canadian school boards used the least. London, Ontario public schools had separate classes as early as the 1920s at Empress Avenue Public School. Oshawa had gifted classes at Centre Street School by about 1932, though only briefly before discontinuing them (Rogers, 1932). Saskatoon started its separate gifted classes in 1932 as well. The first gifted classes in the prairie city were for Grades 4 and 5, enrolling children from all over town whose I.Q.s were 125 or higher (Laycock, 1940). In London and Oshawa, gifted students' I.Q.s ranged from 135 to 185 (Rogers, 1932). Saskatoon gifted children spent four years in the class and returned to the regular grades when they finished Grade 7 or 8 (Laycock, 1940). According to Robert Basil Howsam (1950), who wrote his MEd thesis on the Saskatoon program, new classes were formed every two years, one new group starting in Grade 4 and another in Grade 5.

The number of Canadian school systems offering separate gifted classes grew noticeably in the 1950s. In 1953, it was reported that, in addition to London and Saskatoon, Kingston and Sudbury also had separate gifted classes. Montreal's Protestant school board started classes in 1942, but had discontinued them by 1950 (Dunn & McNeil, 1954). In 1956, in addition to its enrichment program, Ottawa public schools finally opened two classes for gifted children in Grades 5 to 8. These classes were made up of youngsters with I.Q.s of 140 or higher (Ottawa Public School Board, 1958). The Toronto Board of Education experimented at various intervals with separate gifted classes as well, including at Howard Park Public School in the 1930s (Worden, 1936) and Hodgson Public School in the 1950s (Laughlin, 1958), but did not adopt the separate model formally. Etobicoke's experiments with separate classes debuted around 1955, with these becoming permanent in September 1958 (Robb, 1958; Board of Education for the Township of Etobicoke, 1957). Typically the curriculum in separate gifted classes consisted of the same enhancement activities that gifted students getting enrichment in the mainstream classes received (Rogers, 1932; Laycock, 1940).

1 On Laycock's career, see Gleason (1999).

At the secondary school level, separate gifted classes were very rare. Sault Ste. Marie Collegiate created a separate gifted Grade 9 class in September 1956. It was made up of the incoming students with the highest I.Q.s (Sparling, 1958). North Vancouver High School opened its separate classes in the 1930s. A small high school, and the district's only secondary school, it was forced to use less selective pupil groupings. In a model more akin to streaming than anything else, the Grade 9 gifted class at North Vancouver High School consisted of one quarter of the entire Grade 9 cohort, the top-ranking and brightest pupils. The school selected students based on their Grade 8 standing, requiring them to have a minimum I.Q. of 105 (which, itself, was actually quite average) and to be at least 12 years of age. Grade repeaters were not permitted, except those who had repeated because of illness (Matheson, 1936). This sort of streaming was also used by some boards in their large elementary schools that had more than a single class at any grade level. York Township's Humbercrest Public School used this approach (Stewart, 1958). And by the 1950s, all Grade 7 and 8 students in the Ottawa public system attended one of the city's nine intermediate schools, where they were streamed into "superior, average, and slow groups" (Ottawa [City of] Public School Board, 1956, pp. 3–6) geared to their abilities.

Phase 3: "An Investment in Canadian Brains," the Gifted as National Natural Resource, 1925–1957

By the mid-1920s, the argument that gifted education was required to preserve the nation's leaders and talented individuals increasingly displaced the earlier idea that it was required to safeguard superior "racial stock." C. C. Goldring (who went on to serve as superintendent of Toronto public schools from 1932 to 1959) wrote a series of three articles (1924, 1925a, 1925b) for *The School* that addressed this new idea. He asked: "Can a country or community afford to neglect the development of the greatest of its natural resources, namely, human brain power?" (1925a, p. 368). He would add his view that "Canada must keep pace with other countries in this matter by discovering and giving special training to those whom nature has endowed with an especially high degree of intelligence" (1925b, p. 474). S. B. Sinclair, a former Ontario provincial inspector of auxiliary (special education) classes, wrote in his book, *Backward and Brilliant Children*

(1931), that “the most valuable asset of a country is its gifted children, the future well-being of society rests largely in their keeping” (p. 66). And similarly, in an address he delivered to the Canadian Education Association (CEA) in 1953, Sidney Smith (1954), president of the University of Toronto, informed educators, “Canada needs ‘Brains Unlimited’—they are the most valuable ‘natural resource’ we possess, worthy of our best ‘development and conservation program.’ You and I and all of us in the field of education are responsible for that program” (pp. 3–4). Like the “Ducks Unlimited” venture that Smith jokingly referenced, and that conservationist Canadians had established to preserve the nation’s waterfowl, Smith said educators needed a national strategy. “I realize that the analogy between ducks and the brains of your pupils is, to say the least, inelegant,” he jested. But he was quite serious about the “urgent...necessity” to preserve talent in an “expanding” (pp. 3–4) country such as Canada, which he said had shortages of physicians, dentists, nurses, teachers, engineers, clergy, artists, and public servants.²

By the 1940s and 1950s, proponents of gifted education had also mostly left behind the openly racist and elitist claims about high I.Q.s correlating to whiteness and upper-class status, which Terman and others had set forth in the 1910s and 1920s. Smith (1954), for instance, was careful to note in his CEA address, “Very good brains are not common, but where they are found they are unlimited by financial background, social standing, racial origin, or parental occupation” (p. 12). S. R. Laycock wrote in 1940 that in selecting children for Saskatoon’s gifted classes, “strict care was exercised that no child was excluded because of humble origin and that no one was included because of the position or prestige of his parents” (p. 4). As historian of education Mona Gleason (1999) has shown, environmental theories became more popular in psychology by the late 1930s, which accounts for this change in tone. After the Second World War, and after “Nazi racial atrocities came to light,” these theories helped to move psychology further away from its earlier interest in heredity and “racial purity” (pp. 23–24).

However, the decline of overt racism and elitism, and the related emergence in psychology of environmental theories that displaced hereditary ones, did not necessarily banish prejudice from ideas about giftedness. This was because more subtle racist and class bias still fit with newer culture-nurture explanations of genius (see also Terzian & Rury, 2014). Florence Dunlop’s writings (1941, 1947) about giftedness in the 1940s

2 See also Urban (2010) and Low (2002), as well as the NFB film Low describes, *The Gifted Ones* (1959).

exemplify this. Dunlop, along with Laycock, was one of Canada's opinion leaders on gifted education. Head psychologist at the Ottawa Public School Board from 1935 to 1961, she completed a PhD in psychology at Columbia under Leta Stetter Hollingworth (Wright, 2002). In a piece entitled *The Identification, Description and Development of the Intellectually Gifted*, Dunlop (1941) wrote: "What a man can do depends on his congenital equipment and on the opportunities which his environment affords." But she would go on to add in the same piece that "a [Winston] Churchill born in Central Africa could not have become a Churchill" (p. 5), because of what she chauvinistically dismissed as an inferior African cultural environment. John E. Robbins (1948) of the federal government's Dominion Bureau of Statistics analyzed a decade's worth of I.Q. data, over 10,000 scores, that Dunlop and her staff had gathered from Ottawa pupils. In an article in the *Canadian Journal of Psychology*, he suggested that nature and nurture each had their part in a child's I.Q. score. He still noted, however, that in his data "contrasts in homes of families between the high and low groups are striking," with high I.Q.s correlating to high incomes, and low I.Q.s to the opposite. He observed as well that the children of "Scottish, Hebrew and English parents" (pp. 35–37) (people of those ethnic extractions) had higher I.Q.s, while children of Irish parents had lower ones.

Like their predecessors since the 19th century, educators and psychologists in the 1925 to 1957 period contended that gifted children faced unique psychological obstacles. Laycock (1955), who was also a leading authority on "mental hygiene" (or the psychology of positive mental health; Gleason, 1999), reminded educators that "because of the gifted child's intellectual brilliance and possibilities for academic success, there is sometimes a temptation for the school to concentrate on the development of such a child's intellectual capacities and to neglect other aspects of his growth" (p. 80). He continued, "As in the case of mentally and physically handicapped youngsters, the teacher needs to remind herself that the gifted child is, first of all, a child, with all a child's problems of growth and development" (p. 80).

Worries about gifted children's mental health, however, frequently extended to what psychologists by this time defined as gifted children's specific and special plight: their high intelligence, and the ignorant and uncaring attitudes of others, conspired to make the gifted susceptible to becoming social outcasts. Laycock (1940) wrote that gifted children were frequently and unfairly singled out as "priggish or snobbish" (p. 5). Dunlop (1941) blamed "feelings of inferiority" (pp. 24–25) and jealousy from average children

and adults for the undermining of gifted children's self-esteem. Sidney Smith (1954) said that gifted children's classmates expressed contempt for "'bookworms,' 'swotters,' 'egg-heads.'" This contempt from their peers had driven many gifted boys and girls toward shooting for only "second-class honour standing." Even adults, he said, sometimes believed that "any student so ill-advised as to take a first in his course must be a maladjusted, impractical genius, who will probably starve in a garret" (p. 12). J. A. Long (1958), of the Ontario College of Education, not only worried about the gifted child who "develops a sense of inferiority...because his gifts are not appreciated by his fellows" but also, "on the other hand," about the child "made offensively boastful and conceited through exaggerated attention from doting parents and proud teachers" (p. xii).

Gifted girls were sometimes identified as more prone to maladjustments than gifted boys were. Many educators did not think females were supposed to be brainy and assertive like the characteristically gifted child, whom they presumed was male (Smyth, 1992). Saskatchewan schoolteacher Alice Fisher (1939) wrote an article about giftedness in *The School* that featured a protagonist she called "Gifted Bill," meant to be prototypical of the gifted child (and hence male). Yet unlike many authors who wrote about gifted youngsters as though they were all male, Fisher added to her piece a few comments on "Girl Bill," the feminine alter ego of "Gifted Bill." She had specific needs as a female gifted child and faced specific psychological challenges because of that as well. "Girl Bill is apt to be too intense," Fisher wrote. "She tends to become abrupt and positive in manner and careless of the feelings of others. It is for the teacher to see that she does not become the brilliant but 'queer' woman, whose faulty social adjustments handicap her for all her life" (p. 197). Girl Bill's giftedness made her strange and unfeminine, unlike the desired archetype of the 1930s, which one historian (Strong-Boag, 1988) has described as "the curly-headed moppet, simultaneously conventionally feminine, touchingly dependent, and often implicitly flirtatious" (p. 7).

By the 1950s, psychologists were intensely interested in the personality adjustment of all children (Gleason, 1999), but even in this climate of heightened awareness, gifted children seemed to stand out. Canadian researchers in the 1950s dug into the root causes of gifted children's psychological troubles and searched for solutions. Robert Howsam (1950), in his MEd thesis, tried to ascertain if attending a separate special class for the gifted turned a child into a social outcast. He concluded it did not. Saskatoon's gifted classes "were in no way detrimental to the social status of the children who

attended them.” The pupils fit in just as well in the school and in “neighbourhood play groups” as any other child (p. 54). Educators in the 1950s paid a great deal of attention to so-called “gifted underachievers,” that is students with high I.Q.s who did not succeed academically. (They seldom seem to have said so, but they may have had male students in mind, since females, like “Girl Bill,” were supposed to suppress their overachievement drive.) In Toronto, 16 public high school guidance counsellors launched a study of the gifted underachievement problem in 1952 (Barrett, 1958; Research Committee of The Association of Heads of Guidance Departments Toronto Secondary Schools, 1955). H. O. Barrett (1958), one of the counsellors on the study and head of guidance at Eastern High School of Commerce, believed—seemingly contradicting Howsam’s findings—that gifted underachievers did not fit in socially and that this was in part responsible for their academic failings. Across Canada (Axelrod, 2005) and the United States (Urban, 2010) in the 1950s, many educators, including prominent figures such as American reformer and one-time Harvard University president James Bryant Conant, anguished that the percentage of youth with high I.Q.s who went on to post-secondary education was smaller than it should be.

Several commentators in the 1950s claimed that schools neglected gifted children academically, by paying too little attention to their specific needs and devoting too much energy to delivering a curriculum for average and below-average pupils. The Toronto Board of Education guidance counsellors reprised this theme in 1955, noting in their study that “the critics feel that the superior child has actually become the educationally-neglected child in our schools” (Research Committee of The Association of Heads of Guidance Departments Toronto Secondary Schools, 1955, p. 1). Sidney Smith (1954) claimed (on the authority of what his undergraduates told him anecdotally) that in many Canadian secondary schools “the bright boy or girl is the most underprivileged pupil there. He is in a large class, and the teacher spends over half the time repeating, for the benefit of the average and the dull, points which he has already grasped. He is bored. He becomes lazy. His mind is not being stretched” (p. 5).

J. A. Long (1958) said much the same thing. In the regular class, the gifted student “becomes bored by the endless repetition of work which he grasped quickly and perfectly on its first presentation.” This led gifted pupils to “develop poor work habits and poor attitudes towards achievement in general” (p. xi). Smith (1954) asked for a frankly differentiated approach. “The true democratic principle is equality of opportunity, which

is entirely different; indeed, it is opposed to egalitarianism. Equality of opportunity means that the best brains must be afforded just as great an opportunity to develop their full capacity as the slow” (p. 3).

In the United States, as historian Wayne Urban (2010) has noted, the President’s Scientific Advisory Council’s Panel on Education stated in 1959,

We recognize that in a democracy we should provide each individual with the opportunity to develop his talents to the fullest. It would be difficult to think of anything less democratic than a system that sacrifices in any way the stimulation of the bright student, either to learn more or to progress faster through prescribed work. (Cited in Urban, 2010, p. 166)

A famous Canadian polemic in the 1950s, Hilda Neatby’s book *So Little for the Mind* (1953), “a root and branch critique of progressive education that attracted unprecedented public attention” (Tomkins, 2008, p. 262), also lamented the fate of bright children in schools.³ Neatby, a history professor at the University of Saskatchewan, damned “democratic equalitarianism.” Under two or more generations of progressive education, she alleged, Canadian schools passed over talented youngsters while lavishing “special attention” on “all the physical, emotional, and mental abnormalities.” The result, she claimed, was that “the old-fashioned things called the mind, the imagination and conscience of the average and better than average child, if not exactly forgotten, slipped into the background” (p. 15). Neatby also raised the issue of psychological damage she said schools had done to academically clever children. Unlike Samuel Laycock, who saw mental hygiene as a help to the gifted, Neatby implicated it in the brilliant youngster’s plight:

The bright child is disposed of by warnings that he must be kept in his age group, socially adjusted, emotionally matured, held back from overachieving. There is no frank acceptance of the fact that, in the nature of things, very many bright children cannot be completely adjusted to their environment. (pp. 320–321)

In the small number of recommendations she placed in the book’s conclusion, Neatby suggested:

3 Smith (1954) alluded to Neatby’s book in his talk to the CEA. (And he appears to have cribbed from the author’s ideas as well.)

...giving to all who are capable as rich strenuous intellectual training as they can take. If this necessitates grouping in classes or in schools, such grouping shall be undertaken and the social drawbacks, if any, should be faced courageously... We must be able in the future to profit from the creative efforts of these minds. This is for us a moral and material necessity. (p. 332)

If, as Gidney (1999) and Axelrod (2005) have argued, Neatby's (1953) account was overblown and progressivism's roots never went as deep as she feared, *So Little for the Mind* nevertheless captured a feeling that Canadian schools, in the last few years leading up to *Sputnik*, were failing their best and brightest scholars. Growing interest in gifted education expressed that mood.

Conclusion

The launch of *Sputnik* was a benchmark for heightened interest in gifted education. In the long lead up to that event in 1957, giftedness as a concept and school programs for gifted children took shape in three historical phases. In the first phase, prior to 1910, precocious children were merely curiosities, until alienists and other experts made them into a medical concern. In the second phase, covering the years approximately 1910–25, Canadian school systems developed acceleration, enrichment, and separate classes as policies specifically designed for gifted pupils. Eugenacists claimed that nurturing these youngsters was vital to preserving “racial stock.” With I.Q. testers, eugenacists also developed racist and elitist ideas about the distribution of high I.Q.s in the population. In the third historical phase, which started in the mid-1920s and continued into the 1950s, gifted education's proponents redefined bright and talented children as human resources that the Canadian nation had to protect. A shift in psychology away from nature and heredity toward nurture and culture still did not totally dispel racist or classist prejudices from gifted education. Authorities in this phase, however, refined thinking about giftedness and psychological problems, introducing the idea that gifted children were especially susceptible to maladjustments. Gifted girls, at many times throughout history somewhat of an afterthought, were seen as particularly at risk of maladjustment if they overachieved; boys, however, were thought to be maladjusted when they underachieved. Finally, when progressive

education's opponents in this phase looked for evidence of its failings, they pointed to the neglect of gifted children as an example.

Educational researchers interested in giftedness in the present moment are likely to notice that many themes from its past have not gone away. Far from that, these themes appear to resonate with a set of academics, educators, parents, and policy makers. There is still, for instance, the notion that gifted children's high intelligence places them at an especially acute risk for psychological distress (New Brunswick Department of Education, 2007). That concern originated with alienists in the days of dementia praecox, a diagnosis long forgotten about. It is also still common to hear people claim that gifted children are unjustly underserved by mainstream curricula designed for the average or below-average child (McCall, 2015; Kanevsky & Clelland, 2013). Education experts now use the language of an "appropriate developmental placement" for gifted children (Lubinski, 2016, p. 909). But this is really an old idea about differentiating the curriculum for the gifted, clothed in new terms. Thankfully theories about how failing to look after gifted children leads to "racial" decline have not been fashionable for many years. But the argument that a nation ignores intellectual talent at its peril is still used. An American report by three university professors called this kind of neglect "a national scandal" (Colangelo, Assouline, & Gross, 2004), surely an overstatement, but one that we have heard before. It is relatively easy to trace back to eugenics the suspect claim that academic talent is innate, finite, and must be nurtured or there will be consequences on a nation-sized or other large scale. That on its own should give researchers pause. Historical legacies offer plentiful food for thought in the critical study of giftedness and gifted education in the present moment.

References

- Aldrich R. (2003). The three duties of the historian of education. *History of Education*, 32(2), 133–143. doi: 10.1080/00467600304154
- Axelrod, P. (2005). Beyond the progressive education debate: A profile of Toronto schooling in the 1950s. *Historical Studies in Education/Revue d'histoire de l'éducation*, 17(2), 227–241.
- Barrett, H. O. (1958). Research. In *Education of the gifted: The fourteenth yearbook of the Ontario School Inspectors' Association* (pp. 84–92). Toronto, ON: Copp Clark.
- Board of Education for the Township of Etobicoke. (1957). *Progress report: Classes for exceptional children*. Etobicoke, ON: Board of Education.
- Christou, T. M. (2012). *Progressive education: Revisioning and reframing Ontario's public schools, 1919 to 1942*. Toronto, ON: University of Toronto Press.
- Clarke, C. K. (1906). Dementia praecox. *British Medical Journal* (September 29), 755–757.
- Clarke, C. K. (1922). What is your child's I.Q.? *Maclean's*, 35(2), 13–15, 36–38.
- Colangelo, N., Assouline, S. G., & Gross, M. U. M. (2004). *A nation deceived: How schools hold back America's brightest students*. (Vol. 1). Iowa City, IA: The Connie Belin and Jacqueline N. Blank National Center for Gifted Education and Talent Development.
- Cole, J. (2013). Alpha children wear grey: Postwar Ontario and Soviet education reform. *Historical Studies in Education/Revue d'histoire de l'éducation*, 25(1), 55–72.
- Cuban, L. (2001). Can historians help school reformers? *Curriculum Inquiry*, 31(4), 453–467.
- Darmon, P. (1979). Le malheur d'être surdoué (XVIIe–XVIIIe siècles). *L'histoire*, 16, 89–91.
- Dowbiggin, I. R. (1997). *Keeping America sane: Psychiatry and eugenics in the United States and Canada, 1880–1940*. Ithaca, NY: Cornell University Press.

- Dunlop, F. (1941). *The identification, description and development of the intellectually gifted*. N.p.: N.p.
- Dunlop, F. (1947). Analysis of data obtained from ten years of intelligence testing in the Ottawa public schools. *Canadian Journal of Psychology*, 1(2), 87–91.
- Dunn, L. M., & McNeil, W. D. D. (1954). Special education in Canada as provided by local school systems. *Exceptional Children*, 20, 209–215.
- Dyck, E. (2013). *Facing eugenics: Reproduction, sterilization, and the politics of choice*. Toronto, ON: University of Toronto Press.
- Ellis, J. (2013). “Inequalities of children in original endowment”: How intelligence testing transformed early special education in a North American city school system. *History of Education Quarterly*, 53(4), 401–429. doi: 10.1111/hoeq.12035
- Fisher, A. S. (1939). The gifted child in the school without special classes. *The School* (Elem. ed.), 28(3), 193–198.
- Fleming, W. G. (1971). *Schools, pupils, and teachers*. (Vol. 3 of Ontario’s Educative Society). Toronto, ON: University of Toronto Press.
- Gidney, R. D. (1999). *From Hope to Harris: The reshaping of Ontario’s schools*. Toronto, ON: University of Toronto Press.
- Gleason, M. (1999). *Normalizing the ideal: Psychology, schooling, and the family in postwar Canada*. Toronto, ON: University of Toronto Press.
- Goldring, C. C. (1924). Wanted: An investment in Canadian brains. *The School*, 13(4), 283–285.
- Goldring, C. C. (1925a). The supernormal child. *The School*, 13(5), 367–370.
- Goldring, C. C. (1925b). The supernormal child. *The School*, 13(6), 471–474.
- Grant, W. L. (1928). The education of the brilliant child. *Queen’s Quarterly*, 35, 370–383.
- Howsam, R. B. (1950). *A comparative sociometric study of children attending special classes for the mentally gifted and those attending ordinary classes in the public elementary schools in Saskatoon* (Unpublished MEd thesis). University of Saskatchewan, Saskatoon.

- Jolly, J. L. (2009). A resuscitation of gifted education. *American Educational History Journal*, 36(1), 37–52.
- Kanevsky, L. S., & Clelland, D. (2013). Accelerating gifted students in Canada: Policies and possibilities. *Canadian Journal of Education*, 36(3), 229–271.
- Kett, J. F. (1978). Curing the disease of precocity. *American Journal of Sociology*, 84. doi: 10.1086/649240
- Kevles, D. J. (1985). *In the name of eugenics: Genetics and the uses of human heredity*. Berkeley, CA: University of California Press.
- Laughlin, J. E. (1958). Special subject area classes. In *Education of the gifted. The fourteenth yearbook of the Ontario School Inspectors' Association* (pp. 61–69). Toronto, ON: Copp Clark.
- Laycock, S. R. (1940). Special classes for gifted children in a small city. *Understanding the Child*, 9(1), 3–6.
- Laycock, S. R. (1942). Helping the bright pupil. *The School* (Elem. ed.), 30(7), 561–565.
- Laycock, S. R. (1955). The gifted child in the rural school. *Canadian Education*, 10(4), 80–93.
- Long, J. A. (1958). Foreword. In *Education of the gifted. The fourteenth yearbook of the Ontario School Inspectors' Association* (pp. ix–xvii). Toronto, ON: Copp Clark.
- Low, B. J. (2002). *NFB kids: Portrayals of children by the National Film Board of Canada 1939–89*. Waterloo, ON: Wilfrid Laurier University Press.
- Lubinski, D. (2016). From Terman to today: A century of findings on intellectual precocity. *Review of Educational Research*, 86(4), 900–944.
- Margolin, L. (1994). *Goodness personified: The emergence of gifted children*. New York, NY: Aldine de Gruyter.
- Matheson, L. A. (1936). *The segregation of bright pupils in a medium sized high school* (Unpublished MA thesis). The University of British Columbia, Vancouver.
- McCall, J. (2015, January 7). [Letter to the editor.] Gifted students long ignored. *Vancouver Sun*, B7.

- McLaren, A. (1990). *Our own master race: Eugenics in Canada, 1885–1945*. Toronto, ON: McClelland & Stewart.
- Munro, P. F. (1926). *An experimental investigation of the mentality of the Jew in Ryerson Public School Toronto*. Toronto, ON: University of Toronto Press.
- National Film Board of Canada. (1959). *The gifted ones*. [Motion picture.] Canada: NFB.
- Neatby, H. (1953). *So little for the mind*. Toronto, ON: Clarke, Irwin & Company.
- New Brunswick Department of Education, Educational Services Division (Anglophone). (2007). *Gifted and talented students: A resource guide for teachers*. Fredericton, NB: Department of Education.
- Noll, R. (2011). *American madness: The rise and fall of dementia praecox*. Cambridge, MA: Harvard University Press.
- Onusko, J. (2014). *Growing up in postwar suburbia: Childhood, children and adolescents in Canada, 1950–1970* (Unpublished doctoral dissertation). Trent University, Peterborough.
- Ottawa [City of] Public School Board. (1956). *Study on gifted children*. Ottawa, ON: Public School Board.
- Ottawa Public School Board. (1958). *Minutes of the proceedings of the City of Ottawa Public School Board for the year 1957. Also financial statement of the board for the year 1957 and the chief inspector's report for the year 1957*. Ottawa, ON: Public School Board.
- Owram, D. (1996). *Born at the right time: A history of the baby-boom generation*. Toronto, ON: University of Toronto Press.
- Reese, W. J. (2013). *Testing wars in the public schools: A forgotten history*. Cambridge, MA: Harvard University Press.
- Research Committee of The Association of Heads of Guidance Departments Toronto Secondary Schools. (1955). *A study of thirty-two gifted students of the Toronto secondary schools*. Toronto, ON: Author.
- Robb, M. (1958). Advancement classes in Etobicoke public schools. In *Education of the gifted. The fourteenth yearbook of the Ontario School Inspectors' Association* (pp. 69–74). Toronto, ON: Copp Clark.

- Robbins, J. E. (1948). The home and family background of Ottawa public school children in relation to their I.Q.'s. *Canadian Journal of Psychology*, 2(1), 35–41.
- Rogers, G. F. (1932). The enrichment of courses in the elementary schools. In *Proceedings of the seventy-first annual convention of the Ontario Educational Association* (pp. 169–176). Toronto, ON: Ontario Educational Association.
- Sandiford, P., & Kerr, R. (1926). Intelligence of Chinese and Japanese children. *The Journal of Educational Psychology*, 17(6), 361–367.
- Sinclair, S. B. (1931). *Backward and brilliant children*. Toronto, ON: Ryerson Press.
- Smith, S. (1954). Brains unlimited. *Canadian Education*, 9(3), 3–12.
- Smyth, E. (1984). Educating Ontario's ablest: An overview of historic and emerging trends. *Special Education in Canada*, 58(4), 145–147.
- Smyth, E. (1992). "Where are the wise women?" A reflection on the issues surrounding the educational experience of gifted girls. In *Proceedings–SAGE 1992/6th Canadian Symposium* (pp. 157–64). Retrieved from ERIC. ED371551
- Sparling, P. H. (1958). The programme for the gifted in the secondary school acceleration and enrichment in the Sault Ste. Marie Collegiate. In *Education of the gifted: The fourteenth yearbook of the Ontario School Inspectors' Association* (pp. 155–159). Toronto, ON: Copp Clark.
- Stearns, P. N. (1984). History and public policy. In G. J. McCall & G. H. Weber (Eds.), *Social science and public policy: The roles of the academic disciplines in policy analysis* (pp. 91–128). Port Washington, NY: Associated Faculty Press.
- Stewart, J. F. (1958). Streaming in the school. In *Education of the gifted: The fourteenth yearbook of the Ontario School Inspectors' Association* (pp. 57–61). Toronto, ON: Copp Clark.
- Strong-Boag, V. (1988). *The new day recalled: Lives of girls and women in English Canada, 1919–1939*. Toronto, ON: Copp Clark Pitman.
- Tait, W. D. (1921). The gifted child. *Canadian Journal of Mental Hygiene*, 3(3), 265–273.
- Terman, L. M. (1926). *Mental and physical traits of a thousand gifted children*. (Vol. 1 of Genetic studies of genius). Stanford, CA: Stanford University Press.

-
- Terzian, S. G. (2013). *Science education and citizenship: Fairs, clubs and talent searches for American youth, 1918–1958*. New York, NY: Palgrave Macmillan.
- Terzian, S. G., & Rury, J. L. (2014). “A highly selected strain of guinea pigs”: The Westinghouse science talent search and educational meritocracy, 1942–58. *Teachers College Record*, 116(5), 1–33.
- Tomkins, G. S. (2008). *A common countenance: Stability and change in the Canadian curriculum* (Rev. ed., with an introduction by W. F. Pinar). Vancouver, BC: Pacific Educational Press.
- Toronto Board of Education. (1919). *Minutes*. Appendix No. 112, Report of Trustee (Mrs.) Groves on her visit to special Auxiliary classes in American cities, 19 June 1919, 749–755. Toronto, ON: Board of Education.
- Toronto Board of Education. (1928). *Annual report*. Toronto, ON: Board of Education.
- Toronto Board of Education. (1930). *Annual report*. Toronto, ON: Board of Education.
- Toronto Board of Education. (1954, January). Report on gifted children: Givins School. (Vertical Files. “Curriculum–Special Ed.–Gifted.”) Toronto District School Board Archives.
- Urban, W. J. (2010). *More than science and Sputnik: The National Defense Education Act of 1958*. Tuscaloosa, AL: University of Alabama Press.
- Winzer, M. A. (2009). *From integration to inclusion: A history of special education in the 20th century*. Washington, DC: Gallaudet University Press.
- Worden, O. O. (1936). *A comparative experimental study of two similar groups of super-normal elementary school children* (Unpublished DPaed thesis). University of Toronto.
- Wright, M. J. (2002). Flashbacks in the history of psychology in Canada: Some early “headline” makers. *Canadian Psychology*, 43(1), 21–34.