

Psychology, Cornell, and the Rockies: The Graduate Preparation and Early Career of William Chandler Bagley, 1896-1906

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William C. Bagley (1874-1946) lived and worked during a time of great change in American educational thought. His professional career spanned numerous highly influential intellectual movements such as child study, developmentalism, social behaviorism, eugenics, scientific management, Progressive education, intelligence testing, Essentialism, and many others. Throughout a career in which he published or co-published over twenty-five books and hundreds of articles in dozens of journals; founded and edited the Intermountain Educator and the Journal of Educational Psychology (among other publications); served as a faculty member at Montana State Normal College, Oswego Normal School, the University of Illinois at Urbana-Champaign, and, finally, Teachers College; Bagley worked tirelessly to improve the fields of educational psychology, teacher education, history of education, curriculum, and many others. From the time he graduated with his Ph.D. from Cornell in 1900 to his death as editor of *School and Society* in 1946, Bagley actively participated in every significant intellectual movement that came to the attention of professors of education.

When remembered, Bagley is often narrowly categorized as only an Essentialist, a position which he and others took during his thirty-ninth and last year in academia, or one who disagreed entirely with Progressive education. Such limited categorizations ignore the vast majority of Bagley's career, neglect many of his ideas that should be considered "progressive," and ultimately obscure more than they clarify. A closer inspection of his life and career should illuminate an important period in the development of American education, reclaim a lost educator's important contributions to educational thought and practice, reveal areas of further exploration in the complex history of American education, and contribute to the necessity for a dialogue with past educators that is paramount to the perpetuation of a vibrant educational establishment. More in-depth understanding of Bagley's graduate school preparation and his early work in normal school education contributes to the furthering of this dialogue and helps one to recognize the significance of his ideas to American educational thought and practice.

Bagley, like many other graduate students of the late 19th century who wished to improve education, studied biology, physiology, and psychology in his overall attempt to apply science to the education of children. At this time, discussions regarding American education accelerated at a whirlwind pace. As early as the 1870s, movements began to develop which aimed to transform the rigid, strict, and even lifeless systems of American schooling that held sway in the organized classrooms in this country.¹ At the end of the 19th century, a large majority of the people calling for change, individuals such as G. Stanley Hall, John Dewey, James McKeen Cattell, and William Torrey Harris², had received their graduate preparation in psychology. For certain, these individuals looked eastward to Germany's Wilhelm Wundt and the first

experimental school of psychology at Leipzig for guidance.³ The early contributions of psychologists such as Hall, Dewey, and Harris have been well documented by Cremin, Kliebard, and others.

However, the neglect of writing on William Bagley's early 20th century efforts indicates the need for research on additional educators from this period. When researchers have conducted studies on this era, Bagley's contributions have either been narrowly cast as conservative only or have been the subject of broad generalizations. Therefore, a more complete study of Bagley's efforts at the turn of the century adds a dimension to an important period, focuses attention toward an aspect of Bagley's work that deserves careful scrutiny, possibly foreshadows some of the debates that would occur at Teachers College thirty years later, and advances several underlying explanations for Bagley's thinking during his later years. First, however, an introduction to two main schools of psychology of the turn of the century helps one to understand Bagley's graduate school preparation and its influence over his work.

"Structuralism" and "Functionalism"

Thorough explanations of "structuralism" and "functionalism" are necessary for an understanding of Bagley's career. As a future student in Edward Bradford Titchener's laboratory, Bagley was highly influenced by the work of his considerably older mentor. Structuralism, which might be considered to have many similarities to late 20th century cognitive psychology, as a school of thought grew out of E. B. Titchener's efforts at Cornell.⁴ Beginning in the early 1890s, Titchener began to build an American psychological laboratory that was operated upon principles that were similar to the Wundtian tradition that he had learned as a student at Leipzig.⁵ In doing so, he patterned his and his students' practices after the introspective technique that categorized structuralist psychology. In short, introspection involved the analysis of one's own thoughts to uncover the underlying principles behind particular experiences. Though still experimental psychology as established by Wundt, introspection as a method was much closer, as opposed to functionalism to be described momentarily, to the philosophical tradition from which psychology arose. In fact, Titchener often employed the term "existentialism" as a synonym for introspection.⁶ The focus on philosophically related introspection, however, should not obscure Titchener's emphasis upon scientific analysis and the establishment of natural laws that would presumably explain consciousness.

In working toward the establishment of laws, Titchener influenced the graduate work of his students, including Bagley, to a significant degree. As A. A. Roback mentioned in his *History of American Psychology*:

It might be anticipated that he (Titchener) . . . would exercise undue authority in the selection of problems for doctoral dissertations. As a rule, the topics were assigned

in keeping with the issues which occupied his attention at the time; and as he was building up, so to speak, a systematic skyscraper, the graduate students were expected to work as a collective unit.⁷

Apparently, Titchener's students conducted experiments that revolved around their mentor's interests. His vision steered, and in large part determined, the course of the activities in the Cornell laboratory. To Titchener, psychology's first task was to categorize "consciousness" into its component parts through the process of introspection. In doing so, the "structure" of consciousness and its relation to experience could lay the foundation upon which all other psychologies could be built.⁸ Notably, following their adviser, none of Titchener's students in the Cornell laboratory conducted studies that were directly related to education in general or the child study of Hall⁹ and Dewey¹⁰ in particular. Also, individual differences, another important component of functionalist psychology as established by James McKeen Cattell,¹¹ did not find its way into Titchener's laboratory. He was concerned about consciousness and what he believed to be the only true psychology—structuralism.

Practically all other psychologists in America, however, were not content to wait upon Titchener, the native Englishman, to complete his work. In the mid to late 1890s, functionalism arose in opposition to Titchener's psychological views. Most importantly, his ideas provided the springboard from which American psychology would extend.¹² Although the term somewhat narrowly categorizes psychologists who often held disparate views, functionalists such as Hall, Dewey, Cattell, and E. L. Thorndike¹³ were anxious to apply their version of psychology to America's contemporary problems. They hoped to enact change. Edwin G. Boring, who earned his Ph.D. under Titchener in 1914, distinguished the two psychologies:

But if you ask why, if you try to understand causes, then you are interesting yourself in capabilities, in capacities, and are being a functionalist. It is as natural to be a functionalist as it is to want to predict, to be more interested in the future than the past, to prefer to ride facing forward on the train. The future concerns you because you think you might change it if you had the ability.¹⁴

In making these changes, science was to guide their decision-making. In contrast, Titchener cared very little about the application of his ideas to contemporary issues. In the future, however, the mainstay of American functionalists became the attempted solution of practical problems through the application of psychology to contemporary difficulties.

Functionalism, as described here, included everything else besides Titchener's structuralism. Titchener, in a sense, was an island in the United States. Although his structuralism exerted tremendous power in the early and mid 1890s, by the early 1900s, the American functionalists had amassed much momentum. Functionalism was, by its very definition, concerned with practical, how-to-related questions. How could psychology help to address the problems created by the increasing enrollment in America's schools? How could a curriculum be created which took the different developmental stages of children into account? In short,

how could schools become "scientific" in a sense that they reflected the research being conducted by American functionalists? These types of questions concerned Titchener very little, if at all. His skepticism arose out of his disagreement that questions such as these consisted of psychological investigation at all. He also contended that functional psychologists had ventured too far from psychology in the Wundtian tradition.¹⁵ Titchener's assertion, therefore, was that psychology might, at some point, address these issues, but certainly not this soon.

In the mid and late 1890s, Titchener and Dewey virtually created the division between these two psychologies. With Dewey's historically important 1896 article, "The Reflex Arc Concept in Psychology," Dewey did much to begin the growth of functionalism away from the more traditional, Wundtian psychology of Titchener's structuralism.¹⁶ In Titchener's response not only to Dewey but also to other emerging functionalists such as James Rowland Angell, W. Caldwell, and A. W. Moore, he set up the dualism between structuralists and functionalists by showcasing Dewey's use of the term "function" as a distinction between himself and the other psychologists.¹⁷ Out of functionalism would grow the immensely influential areas of psychology such as child study, mental testing, individual differences, eugenics, applied psychology, and eventually behaviorism.¹⁸ Significantly, Titchener did not concern himself or his students with these areas of functional psychology. In fact, he viewed the application of psychology to education and practical social issues as detrimental to psychology's ability to establish itself as a science on par with that of physics, physiology, or biology.¹⁹

Bagley and the Rift Between Competing Psychologies

These descriptions, functionalism and structuralism, raise interesting questions about the nature of Bagley's graduate school preparation and therefore his entire career. To be certain, Bagley became interested in both sides of this psychological debate when he began his graduate work at the University of Chicago in the summer of 1896, if not earlier.²⁰ Bagley studied pedagogy and psychology only one summer in Chicago. Then, he returned to his one-room school teaching position in Garth County, Michigan, for one more school year.²¹ In the fall of 1897, Bagley began his studies at the University of Wisconsin in Madison. In Madison, Bagley completed graduate work in psychology under Polish psychologist Joseph Jastrow. Under Jastrow, who had been a fellow student with Dewey and Cattell under G. Stanley Hall at Johns Hopkins,²² Bagley was introduced to the practical, functional side of psychology.

He was obviously interested enough in the study of individual differences to complete a Master's thesis related to this topic. In this 1898 study, which he entitled "A Study in the Correlation of Mental and Motor Ability in School Children," Bagley took various measurements of school children at the Fifth Ward School in Madison.²³ By measuring physical attributes such as head size, grip strength, reaction time to stimulus, and the steadiness of hand, the commonly held belief was that physical attributes were somehow related to mental ability.²⁴ Though he exhibited early interest, or perhaps institutional necessity, in functionalist psychology, Bagley studied only one year in Wisconsin and completed the Master's degree in 1898. Though he completed his degree, the extent to which Bagley's Wisconsin year affected his

understanding of psychology was minimal compared to his future studies at Cornell. Upon completion of his Master's degree, Bagley arrived at a very important decision that would impact his relationship toward American psychology for the rest of his career.

Bagley at Cornell with Titchener

In the fall of 1898, twenty-four-year-old Bagley accepted a fellowship and began his doctoral studies in psychology under E. B. Titchener at Cornell. The decision to attend Cornell and work with Titchener firmly placed Bagley's doctoral work in the structuralist category that Titchener advocated. For someone such as Bagley who held interest in the application of psychology to education, Cornell was not the school to attend. During this time with Titchener, Bagley was encouraged, and required, to conduct psychological studies that differed in very important ways from the rest of America's psychologists, the functionalists. In fact, the initiation of Bagley's studies at Cornell coincided with the beginning of the debate, and hence the creation of two highly diverse psychological doctrines. Titchener no doubt informed his students of contemporary debates. Also, they most likely read the articles that Titchener had just recently published in *The American Journal of Psychology* and *The Philosophical Review*. To be sure, Bagley was well informed of the debates between Titchener and the American psychologists, some of which became considerably contentious.²⁵

One hundred years later, the importance of these discussions to Bagley's career emerge as possibly significant. First, Titchener's brand of psychology placed Bagley at odds with those who would lead the Progressive education movement for the next twenty-five to thirty years. Secondly, a Ph.D. from Cornell may have led partially to Bagley's role as a skeptical supporter of some aspects of Progressive education. The list of Titchener's doctoral graduates reveals only two individuals besides Bagley, Guy Whipple and Carrie Squire, who would pursue the application of psychology to education in general, much less lead Progressive education related movements such as child study, individual differences, or intelligence testing.²⁶ Third, and somewhat paradoxically, Titchener's insistence upon structuralist psychology, though persistent, often accepted functional psychology in moderation, particularly as functionalism flourished in the early decades of the 20th century.

While Titchener held firm to the conviction that structuralism consisted of the only true psychology, he quite likely encouraged his students to familiarize themselves with the other psychologies. For example, Titchener wrote:

When one has once stepped inside the ring of the normal, adult consciousness, there is very little temptation to step out again . . . And if one begins from the outside, with the child or the animal or the abnormal mind, there is little likelihood that one can breathe the confining air of the laboratory, or that one will presently limit one's range of interests to oneself. Partly it is a matter of temperament, partly a matter of chance introduction or of continued occupation. The two types of psychologist are distinct; all the more reason that they should work in harmonious cooperation.²⁷

The intellectual eclecticism that Bagley practiced throughout his life likely flourished under the tutelage of Titchener. Though he did adhere tightly to structuralist psychology, Titchener also evidenced his ability to view different sides of the same issue. Finally, in making his argument for structuralism, Titchener assumed an "essentialist" position in that structuralism, and the attendant analysis of consciousness, had to be completed before functional psychologists could begin their work.

Even though Titchener's brand of psychology may not have flowered as did many branches of functionalism, his impact on the thinking of his students was unmistakable. In 1936, in fact, Bagley listed Titchener as one of the five "master teachers" that he had known in his entire lifetime. As he reflected upon his studies with Titchener, Bagley recalled several characteristics of the Cornell psychologist. He viewed Titchener, his doctoral adviser, as radically different from most all of his other teachers. To Bagley, Titchener was a professor who was convinced that psychology must be established as an exact science, who "indoctrinated" his students into "real laboratory men" and abhorred "arm-chair psychology," and who saw no use in the search for practical applications of the pure facts that were being developed in his pristine laboratory.²⁸ The most enduring Titchener legacy that Bagley recalled, however, included Titchener's very clear conception of scientific investigation, his insistence upon rigorous intellectual work, his drawing of conclusions only after complete consideration of all the available facts, and his bedrock understanding of true academic scholarship in any field of study.²⁹

The lessons that Bagley learned about science and scholarship from his five years at Cornell helped to form the foundation of his approach to teaching and research for the rest of his career. Naturally, two years later, when Bagley assumed his first teaching position as an instructor in psychology and pedagogy, the course descriptions from his classes at Montana State Normal School reflected this exact position.³⁰ With his classes in Montana, Bagley formed a psychological foundation for his students by using Titchener's *A Primer of Psychology*.³¹ Also, with a distinct connection to Titchener's emphasis on consciousness, Bagley described psychology's relationship to education. His course syllabus described his introduction to psychology class as follows:

- (A) Preliminary definitions: Psychology, a collection of facts about consciousness. Educational psychology is limited to those facts of consciousness which are significant in the educative process.
- (B) Utility of formal psychology to the practical work of teaching has probably been overrated. Teaching is an art in which skill and efficiency are acquired only by studious practice.³²

A closer inspection of materials from Bagley's Dillon years revealed the extent to which he emphasized structuralist psychology.³³

In Dillon, he began each of his psychology courses with the essentials of structuralist psychology. Only after this basis had been formed did Bagley venture into practical applications to schooling. This mixture of philosophically related structuralism with Bagley's attempt to make education scientific existed in Bagley's mind throughout his career. In the history of American psychology, Titchener's structuralism, in the Wundtian tradition, created the

link between philosophic and experimental psychology. With Bagley's studies under Titchener, he embodied this link, much unlike functional psychologists, for the rest of his life. In fact, in a study of Bagley's philosophical and psychological views, Erwin Johanningmeier concluded that Bagley, by the end of his career, had completely replaced his psychological foundations for education with a philosophical position.³⁴ The question that arises, however, is to what extent was Bagley's later, more philosophical, position related to Titchener's structuralism? He may not have researched and written as an experimental psychologist in true Titchener form, but he most certainly respected Titchener's teachings. Furthermore, the twin notions of controlled thought and a careful consideration of all the facts, both of which were stressed heavily by Titchener, were fundamental to Bagley's approach to all educational issues. Perhaps, in his later life, the psychology that Bagley began to reject was functionalism and not Titchener.

The Cornell Dissertation

Although the student-teacher relationship most certainly does not invoke a prediction on the part of a student's career, Titchener no doubt heavily influenced Bagley's ideas on psychology and its relationship to education. Bagley's dissertation, which he completed in the spring of 1900, was an introspective study in which he attempted to determine how the context of words in sentences helped a person to determine the word's meaning. Notably, G. Stanley Hall chose to reprint Bagley's dissertation, entitled "The Apperception of the Spoken Sentence: A Study in the Psychology of Language," in a 1900 issue of *The American Journal of Psychology*.³⁵ Without question, the dissertation related only marginally to education in a sense that students must "apperceive" oral lessons from teachers.³⁶ Under the guidance of Titchener, Bagley applied none of his research directly to education, employed adults rather than students as observers for the study, and did not refer even one time to schools or students in the entire dissertation.³⁷

As the subject of his dissertation reveals, the division between structuralists and functionalists placed Bagley in a peculiar position. The coincidental timing of the debate with Bagley's arrival at Cornell virtually assured that the attack by the functionalists was fresh on Titchener's mind. If Bagley had chosen to complete his doctoral study with any other psychologist in America, his interest in the adaptation of psychology to education could have launched him into a leadership role in the emerging Progressive education movement. Whether or not Bagley agreed entirely with Titchener is much less important than his choice to study at Cornell. This decision required him to conduct studies that were at odds with the rest of American psychology. From the beginning, therefore, Bagley either held different psychological (or philosophical) views from those who considered themselves functionalists or, perhaps, they viewed him differently.

Though Titchener's philosophy did not encourage his students to apply psychological research to education, Bagley likely appreciated the relationship between his dissertation research and its application to teaching. In fact, his initial motivation behind the study of psychology, four years prior to earning the Ph.D., revolved around its application to school situations.³⁸ Importantly, Bagley's four years at Cornell (three years as a student and one year as an assistant in Titchener's lab), isolated him from the leaders of the

child study movement during a key period, 1898-1901, when the foundation for Progressive education was being formed by functional psychologists. Also, Bagley's decision to remain at Cornell following the completion of his degree, while the result of his inability to locate employment in the public school arena, indicates his apparent interest in Titchener's form of psychology.³⁹ How could he not have been influenced by Titchener's positions on these issues? Why would Titchener not persuade a bright young student to perpetuate a particular psychological position? Finally, Bagley's year as an assistant most certainly required him to assume a leadership role in the structuralist laboratory while he assisted others in their dissertation research. One such student whom he assisted was his future wife, Florence.

Florence Maclean Winger: Psychologist, Fellow Student, and Future Wife

Florence Maclean Winger, who had earned Bachelor's and Master's degrees from the University of Nebraska in 1895 and 1898 respectively, also moved to Cornell, in 1898, to pursue a doctorate in psychology under the nationally famous Titchener. Because Titchener's style of psychology required highly trained "observers" (or subjects) to perform introspection, many of his students participated in each other's experiments. Naturally, Winger served as an observer in Bagley's dissertation, as did Dr. J. O. Quantz and Dr. G. A. Cogswell.⁴⁰ Reciprocally, Bagley assumed an observer's role in Winger's laboratory work, most likely her dissertation.⁴¹ This one major study of Winger's, which she unfortunately did not complete due to illness in 1900, was printed, in rough draft form, in the *American Journal of Psychology* in 1902.⁴²

Winger and Bagley, who met at Cornell, were married on August 14, 1901, while Bagley was preparing for his first and only year as principal of Maramec Elementary School in St. Louis, Missouri.⁴³ Presumably because of illness, Winger never completed her Ph.D. However, as Bagley's wife for the next forty-five years until his death, her knowledge of psychology most certainly influenced his thinking and provided the opportunity for discussions beyond the university scene. Throughout her husband's career, Mrs. Bagley continued to study psychology by observing her own children at play, by reading the works that her husband collected and wrote, and by engaging in discussions about significant educational matters. Winger's considerable educational background in philosophy, from the University of Nebraska, most certainly established her as a significant figure in not only Bagley's personal life but also his academic career. Also, her attraction to Titchener's form of psychology provides an important link to her philosophical background, and her education as a student of Titchener's reinforces the structuralist viewpoint that Titchener advocated.

Foreshadowing Philosophical Disputes and the Decision to Head West

After Bagley's one year as an administrator with the St. Louis public school system, his wife's respiratory illness apparently persisted. The next move that the young couple would make involved an 1800-mile journey westward to the picturesque, Rocky Mountain town of Dillon, Montana. The birth of their first child, Ruth Winger Bagley, occurred on May 25, 1902, and the three of them arrived in Dillon, three months later, on August 24th.⁴⁴ As the

new director of teacher training and an instructor in psychology at the six-year-old Montana State Normal School, Bagley began his career as a professor and, in only a short time, became a significant educational leader across the state of Montana. His teaching and writing in Dillon reflected an interest in both branches of psychology, but a closer inspection of the Dillon years suggests the degree to which Bagley attempted to create a laboratory that was similar in many ways to that which Titchener had created at Cornell.

Though no one will ever know for certain, the underlying philosophical disputes that followed Bagley to Dillon and arose out of his studies with Titchener quite possibly laid the foundation for his future disagreements with such individuals as Lewis Terman, who helped to popularize IQ tests, and William Heard Kilpatrick, the author of *The Project Method*. Some of these issues included debates that arose out of Bagley's viewpoints regarding "the much-abused cult of 'Child Study',"⁴⁵ the anti-democratic notion of overemphasizing psychological testing⁴⁶, and what he viewed as the excesses of the Progressive education movement.⁴⁷ Interestingly, the psychologists who initiated the advocacies behind each of these movements considered themselves functionalists, and Bagley disagreed, to some extent, with each of them.

These disagreements, however, were not simplistic solicitations for a return to "traditional"⁴⁸ teaching methods, nor were they categorically "conservative." While at Dillon, Bagley worked diligently to eradicate the excessively mechanical elements of monotonous drill and acerbic discipline. With a cautious acceptance of some child-study positions, Bagley labored to replace previous teaching methods with approaches that he viewed as scientifically sound. Subsequently, a unique form of Titchener's structuralism and the functionalism of Hall, Dewey, and James found its way, through Bagley, to Dillon. In the sense that Bagley was most emphatically not for the status quo in Montana, a "progressive," who had an intense background and respect for Titchener's structuralism, began to make change in Dillon.

Progress in the Rockies

In 1897, five years prior to Bagley's arrival in Dillon, Montana, legislators chose Dillon as the site for the state's first teacher training institution. Founded as a land grant school whose sole purpose was the preparation of teachers for the entire state, Montana State Normal School (MSNS) quickly became the pride of this tiny, mountain-nestled community. The city directory aptly described the inhabitants' elegant view of their quintessential western frontier town:

Dillon is a city of 2,600 inhabitants. It is situated on the Oregon Short Line, being a part of the Harriman system. It is one of those marvels of the aggressive West, and is today one of the solid, substantial towns of the great Northwest.

It is the County Seat of Beaverhead County, and is most beautifully laid out in one of the prettiest mountain valleys. Located on the banks of the Beaverhead river, one of the headwaters of the mighty Missouri, it looks out upon a broad, level valley, with silvery streams flowing from every side to the Beaverhead river. Few towns in the Northwest

can present such a splendid record of progress, or such bright prospects of future greatness as Dillon.⁴⁹

Upon his arrival in Dillon, Bagley's position consisted of professor of psychology and pedagogy and the Director of the Teacher Training School. As a typical normal school, Dillon's professors divided instruction into the normal and training departments. Teachers in the normal department formed the general education equivalent and instructed students in such courses as physiology, English, history, physics, biology, German, and calculus. Upon the completion of approximately two years of general coursework, Bagley directed students toward the more advanced topics of psychology and its relation to teaching. After a firm foundation in psychology, Bagley arranged for the students to conduct their practice teaching in the Dillon Public Schools. As one of the first psychologists to begin to make such changes in Montana's teacher training system, Bagley was viewed almost instantly as a scientific expert on educational decision-making and prospects for improvement.

Bagley Crowds into Superintendency

After his arrival in Dillon on August 14, 1902, Bagley worked toward improving the education of not only his normal school students but also the students of the Dillon Public Schools.⁵⁰ In an interesting twist of fate, school board members released the superintendent of the Dillon Public Schools, and, after a good deal of controversy, Bagley accepted the superintendency on January 21, 1903.⁵¹ In its coverage of the former superintendent's release, *The Dillon Examiner* reported that the school board "wished the position for another." This "other" was not specified, but Bagley was very likely the desired candidate. In fact, he accepted the position, without newspaper reports of any other candidates, only ten days following the previous superintendent's resignation.⁵²

This appointment to superintendent permitted Bagley to assume what many Dillonites viewed as a revolutionary position. He now occupied the twin roles of Director of the MSNS Training School and the primary decision-maker for the entire school district. By doing so, he assured that all the normal school teachers-in-preparation could work closely with Dillon's teachers and students. Also, the students of Dillon now benefited from more intense instruction and a significant number of additional teachers. To many Dillon residents, however, the most laudable aspect of Bagley's new dual-position was his refusal to accept any sort of payment for his role as superintendent. Every mention of Bagley as the new superintendent, in both papers, proudly stressed that he worked "without pay."⁵³

While he acted as superintendent, Bagley, of course, continued his work as professor of pedagogy and psychology at the MSNS. Class descriptions for Bagley's five years show a conspicuous pattern. In each psychology course, Bagley first had students read works of structuralist psychology with a particular emphasis upon Titchener and William James. In fact, Titchener's *A Primer of Psychology* and *An Outline of Psychology* were used as texts in several of Bagley's psychology and pedagogy courses.⁵⁴ Only after this structuralist foundation had been formed did Bagley venture into the functionalist readings of Dewey and Hall. By no means did he neglect functionalism, but the practical, problem-

solving related branches of psychology such as child study, individual differences, and mental testing, were for certain secondary in his courses.

Science on the Frontier and the Growth to College Status

After their completion of normal school requirements and a foundation in psychology, students at the MSNS then entered the classroom to begin their observations with "critic teachers." The MSNS paid critic teachers, or, in today's terms, "cooperating teachers," a salary as they created the link between the normal school and the public school classroom. Not all residents, however, reacted positively to Bagley's ideas for change. Some of them initially criticized his emphasis on experimentation with children. They viewed him as a "foreigner" who targeted Dillon's students as "guinea pigs." Nonetheless, Bagley quickly earned the admiration of Dillon's residents and, in one short year, was highly regarded throughout the community.⁵⁵

In the spring of 1903, after Bagley's first full year on faculty, the normal school adjusted its curriculum profoundly. In order to offer the Bachelor's of Pedagogy and the Master's of Pedagogy degrees, the curriculum was extended and thus the name of the school changed to Montana State Normal College.⁵⁶ Faculty meeting minutes from this period indicate Bagley's heavy involvement with the changes in curriculum, and his presence on campus no doubt aided the school in its ability to enlarge its curriculum offerings.⁵⁷ This expansion to college status corresponded with yearly increases in student enrollment. From a graduating class of three in 1901 to a class of twenty-one in 1903 and finally to twenty-four in Bagley's final year, news regarding the college and its efforts to improve Montana education was overwhelmingly positive.⁵⁸ In the spring of 1904, Bagley accepted the position of vice-president for the upcoming 1904-1905 school year and retained his director of training and professor of psychology and pedagogy appointments. Thus, since his arrival in August of 1902, Bagley had rather quickly assumed the three important roles of superintendent, director of the state's only teacher training school, and vice-president of the Montana State Normal College (MSNC).

The Extension of MSNC through County Teachers' Institutes

In addition to these three important roles, Bagley also traveled throughout the state to extend the teachings of the MSNC. College administrators required each professor of psychology and pedagogy to instruct, throughout the year, at various county teachers' institutes. Additionally, the state superintendent of public instruction required each county superintendent, usually in fall or summer, to host a teachers' institute. During his five years in Dillon, Bagley instructed at no fewer than twenty-three of these institutes and became well known, by teachers and administrators, throughout the state.⁵⁹

Naturally, Bagley's lessons for Montana's teachers corresponded closely with the classes he taught at the MSNC. Specifically interested in, but somewhat skeptical of, psychology's application to education, Bagley's initial lectures at each of these institutes consisted of his definition of psychology as "a collection of facts about consciousness." He also emphasized those aspects of psychology that could possibly be applied to education.⁶⁰

Importantly, Bagley also stressed that "the utility of formal psychology to the practical work of teaching has probably been overrated."⁶¹ As he pondered the relevance of psychology to education, Bagley prioritized several important attributes of good teachers:

The teacher needs (1) common sense, (2) sympathy with childlife, (3) knowledge of subject matter to be taught, (4) cleverness at devices.--and then formal psychology. The last named cannot, in itself, compensate for deficiencies in the others.⁶²

Although acutely aware of the limitations of psychology, Bagley held firm to the conviction that science and psychology provided the best available insight into the improvement of instruction. The titles of other lectures that Bagley delivered at the county teachers' institutes included "The Function of the Mind" in which he spoke on life as the adjustment to future situations by the collection of experiences, "Attention" which he defined as a state or pattern of consciousness, "Habit and Fatigue" where he distinguished between automatic and reflex actions and spoke on the pedagogical importance of understanding mental fatigue, and "Memory and Language" in which he discussed the importance of language and its role in educational advancement.⁶³

As has been seen, the possibility, or impossibility, of psychology's application to education occupied Bagley's thinking considerably during this period. Obviously eager to improve teaching through the application of science, Bagley attempted to discover the underlying principles behind the teaching process. Through the discovery and then teaching of these underlying principles to future teachers, he hoped that the educative process could be made more efficient. However, Bagley's mentally disciplined manner led him to hold doubts about the importance of experimental psychology in general and functionalist psychology in particular to education. In August of his second year in Dillon, he wrote:

Works on educational psychology are of two kinds: (1) books written by psychologists who have little or no practical knowledge of the elementary school and its requirements; (2) books written by school men who have an inadequate knowledge of psychology. Of these two types the former possesses, probably, the greater value.⁶⁴

Indicative of his views toward what he would later term "the much-abused cult of 'Child-Study'," Bagley also wrote that the "standard works on child psychology are, however, numerous enough."⁶⁵

The Publication of *The Educative Process*

Bagley's writing during the Dillon years concluded with his publication of *The Educative Process* in the fall of 1905, a book that went through at least twenty re-printings and became a popular educational psychology textbook throughout the nation. In Dillon, Bagley's book was heralded as one which could be compared with Michael Vincent O'Shea's *Education as Adjustment* and Dewey's *School and Society*.⁶⁶ As a significant work in the attempted but somewhat skeptical application of psychology to education, the topics that Bagley addressed spanned practically every substantial educational issue of the time. Representative of his combination of

structuralist and functionalist psychology, Bagley accepted some of the approaches to the adaptation of psychology to education, but only in moderation. Due to the immense scope of *The Educative Process*, only a few of the most important points that Bagley addressed should be considered.

Bagley began *The Educative Process* by “reducing education to its lowest terms” and, in true scientific form, tentatively defined education as “the process by means of which the individual acquires experiences that will function in rendering more efficient his future action.”⁶⁷ In other words, to Bagley, education provided the means through which individuals acquired those experiences that would allow them to learn from their own mistakes, and the mistakes of others, in hopes of making better decisions in the future. After detailed descriptions of formal and informal education, Bagley delineated five “aims” of education, each of which he described as important, and sometimes detrimental, in differing degrees.

The first, “‘The Bread-and-Butter’ Aim,” he defined as that which would “enable a student to earn a livelihood” and then concluded that this aim was what motivated most parents to send their children to school.⁶⁸ The second aim, “The Knowledge Aim,” consisted of the antithesis of the first. In this definition, the knowledge aim reflected “a view of life that would minimize its material expressions and emphasize the ideal . . . representing the life of leisure.”⁶⁹ His third educational aim, which he titled “The Culture Aim,” emphasized the importance of certain elements of culture that adults should be responsible for passing on to children. When he contrasted “The Knowledge Aim” with “The Culture Aim,” Bagley distinguished the two:

In the latter case [The Culture Aim], . . . knowledge is to be acquired, not for its own sake, but because tradition has developed certain standards of culture which imply the acquisition of certain items of knowledge,--the assimilation of certain conventional experiences.⁷⁰

This third aim, The Culture Aim, remained highly important to Bagley for the remainder of his career. In fact, many of the arguments that he would raise against certain aspects of Progressive education, over thirty years later, were based on the unwillingness of some Progressive educators to address ideas closely related to The Culture Aim.

Bagley inelegantly titled his fourth aim “The Harmonious Development of All the Powers and Faculties of Man.” He described this approach as aiming toward the student who would become “the jack-of-all-trades” or the “general utility man.” In short, he contended that society should desire a system of education that produced some of these generalists but not an entire nation of them. Bagley again addressed the positive and negative aspects of this goal, as he did with all the others, and concluded that some, but not too many, “jacks-of-all-trades” were important.⁷¹ With the fifth and final aim, “The Development of Moral Character,” Bagley drew upon Aristotle and Johann Friedrich Herbart to describe his position. Closely related to Bagley’s use of the phrase “social efficiency,” to be described shortly, Bagley wrote, “morality consists in the dominance of the lower and more primitive impulses . . . by higher ideas; a point of view, it will be seen, quite similar to that of Aristotle.”⁷² The theme of suppressing one’s individual, primitive impulses by reaching toward more remote and higher ideals for

society pervaded *The Educative Process*. This highly important concept to Bagley took its most concentrated form in his description of “social efficiency.”

Bagley and “Social Efficiency”

Attractive and romantic terms in education often grow out of control and take on meanings quite dissimilar from the means by which they were originally employed. One such term, “social efficiency,” took on a variety of meanings to otherwise disparately thinking individuals during the first three or four decades of this century. Though many Americans of this period worshipped at the altar of efficiency⁷³, Bagley was one of the first, if not the first, to employ the phrase “social efficiency.” Importantly, however, Bagley’s understanding of social efficiency grew out of his study of Herbartian pedagogy and the influence of his studies with Charles De Garmo at Cornell.⁷⁴

Five years after his graduation from Cornell, in *The Educative Process*, Bagley’s use of social efficiency had nothing to do with the training of individuals for work, the sorting of students into their “inevitable place in society,” or the elimination of monetary waste in school administration. In contrast, social efficiency, to Bagley in 1905, was nothing more and nothing less than a moral position. As he drew upon the moral philosophy of Herbart and elevated social efficiency to the ultimate end of education, Bagley defined social efficiency as:

The standard by which the forces of education must select the experiences that are to be impressed upon the individual. Every subject of instruction, every item of knowledge, every form of reaction, every detail of habit, must be measured by this yardstick. Not What pleasure will this bring to the individual, not In what manner will this contribute to his harmonious development, not What effect will this have upon his bread-winning capacity,--but always, Will this subject, or this knowledge, or this reaction, or this habit so function in his after-life that society will maximally profit?⁷⁵

In other words, to what extent did education help individuals to learn the importance of suppressing their own individual wants and desires for the good of society as a whole?

Only after certain individuals rushed this view to its extremes and distorted Bagley’s conception of social efficiency was the idea leveraged to sort and train individuals for their “destined” roles in society.⁷⁶ Notably, Bagley’s most frequent use of social efficiency can be found in *The Educative Process*, and, as the efficiency movement gained momentum and the phrase became more and more infused with multiple meanings, Bagley applied the term less and less until he very rarely wrote it at all. Ironically, Bagley emerged eight years later as one of the most persuasive critics of David Snedden’s use of “social efficiency” and argued against Snedden’s advocacy for the training of students for the world of work through vocational education.⁷⁷

Child Study, Developmentalism, and Intellectual Eclecticism

As important as Bagley’s definition of social efficiency is to the understanding of his early work, contemporary readers discover the most instructive portion of his 1905 book in the

introduction to his chapter on Child Development. While Bagley labored to improve educational offerings in Montana, the child study movement took shape, and, as the years passed, increased in influence. Though the child study literature emanated from points over two thousand miles east of Dillon, Bagley nevertheless posited well-informed positions on these ideas. His writing of this period revealed that he read child study literature and then cautiously addressed his students with carefully selected aspects of functional psychology.

However, in typical Bagley form, as the movement gained momentum and popularity, Bagley's emphasis upon it weakened. Even though he fully recognized the importance of child study and what would become one important aspect of Progressive education, Bagley predicted some possible negative repercussions of what he later termed "soft pedagogy."⁷⁸ The insightfulness of his introduction to child study warrants its lengthy citation:

The charge of "loose" schoolcraft and a demand for a return to the older and harsher educative methods frequently recur in contemporary educational literature. Under the present regime, it is asserted, drill and discipline have become obsolete terms, effort is at a discount, and the net result is a loss of stamina and a weakening of the moral fiber. But when these charges are made, the "new" education seldom lacks a champion to defend it. The harsher methods, it is maintained, have been justly eliminated. The well-drilled, finely disciplined individual is at best a machine, and modern life requires delicate judgments, adequate to ever differing situations, rather than the machine reaction adapted only to typical situations.

Both parties to this controversy appear to have neglected some very important data that have been accumulated during the past ten years by the now unpopular and much-abused cult of "Child Study," and this neglect is the more unfortunate because the light that child study throws upon the main question at issue renders these heated and speculative discussions quite superfluous. Effort and interest, habit and judgment, repetition and organization, all have a legitimate and indispensable place in the educative process. If certain methods have been emphasized at the expense of others, it is simply because, with his human propensity to hasty generalization, the enthusiastic educator has assumed that a factor which he finds to be efficient at one period of development is equally efficient at all periods of development.⁷⁹

With a quick interpretation of Bagley's comments, one might conclude that his position regarding child study was ambivalent at best, or, at worst, inchoate. Closer inspection of Bagley's career, however, reveals his lifelong tendency toward intellectual eclecticism and a mentally disciplined, passionate-free approach to educational progress. Without question, he often respected, encouraged, and strongly supported some elements of the newest or more advanced educational ideas, but he was also very cautious

about the possibilities for inappropriate, hurried, or inadequate application in school practice. Therefore, he always tempered his advocacy of progressive ideas with cautious comments about their possible overemphasis.

From the Rockies of Dillon to the "Fountainhead of Teacher Education"

Disagreements between psychologists such as Titchener and Dewey should be considered when reading *The Educative Process*. As Bagley's first major publication illustrates, Titchener's philosophy of science and questions about the attempted application of psychology to education, followed Bagley as he departed Dillon in June of 1906 and accepted the Director of Teacher Training position at Oswego, New York. Bagley's Oswego appointment corresponded with the shrinking importance that psychologists placed upon Titchener's structuralism. In Bagley's subsequent work, he had little choice but to practice some aspects of the functionalist psychology that many viewed as directly applicable to teaching. These formative years of Bagley's career, which consisted of his graduate school preparation and his time in Dillon, indicate several important precursors to his future positions. His choice to work with E. B. Titchener required his study of non-education related topics that were in opposition to those aspects of psychology that would form the basis of Progressive education. Also, Bagley insulated himself from the leaders of developmentalism, child study, and mental testing when he relocated to Dillon. He most certainly read the literature that emanated from more eastern locations such as Chicago and New York City, but his isolation from the centers of Progressivism no doubt affected his association with and attitude toward the "new education." Strong differences in social and historical context between Dillon and larger cities should also be emphasized. That which would have been considered more "traditional" in Chicago or New York City was most certainly progress in Dillon.

Certainly, Bagley's disciplined, meticulous, mentally controlled approach to educational issues stayed with him as he chose to depart Dillon for New York State. In the spring of 1906, Bagley accepted the Oswego appointment where he would serve as principal of the practice school, assume the directorship of teacher training, and continue his studies of psychology and its relationship to education. Bagley's relocation, which had been anticipated five months earlier in a front-page story in *The Dillon Examiner* entitled "Oswego Wants Dr. Bagley," shocked many Dillonites and stimulated discussions about how to retain Bagley's service in Montana.⁸⁰ Their attempts, however, were unsuccessful. His move back to New York, the home state of his doctoral study, was imminent. Several possible explanations shed light on the motives behind Bagley's decision to accept the Oswego appointment.

First, in the past academic year, his professional stature as an educator had increased considerably with the publication and positive reception of *The Educative Process*. Second, an offering from Oswego Normal School, a very well known teacher education institute that has been referred to as the "Fountainhead of Teacher Education," hardly could be refused by a thirty-two year old professor who had found immense success while working in Montana and who most certainly craved additional opportunities for increasing his influence.⁸¹ Third, Bagley was well schooled by

Charles De Garmo, a former president of the National Herbart Society, in the Herbartian pedagogical tradition that was so important to the leaders of Oswego. Also, priorities had begun to shift at Montana State Normal College, where athletics and other non-academic studies had begun to be emphasized over more intellectually rigorous studies that Bagley most certainly advocated. In fact, during Bagley's last year at Dillon, he served as chair of a committee that was convened to control the growth of athletics and its subsequent eclipse of more important educational endeavors.⁸² Finally, Florence Bagley's respiratory difficulties that had necessitated the move to Dillon most likely had subsided and the threat of tuberculosis apparently no longer posed the same threat as six years before.

Bagley Bids Farewell to Dillon

As a final goodbye to the people of Dillon and his students at the college, on Friday morning, June 22, 1906, Bagley delivered the ninth annual commencement address at Montana State Normal College's graduation ceremonies. In what some residents considered to be an inspiring and uplifting speech, Bagley stressed the importance of the founding of Dillon's prized college, the idea of a "craft spirit" in the preparation of teachers, and the necessity for further advancements in the fields of education and psychology. Just three full days before he would ride with his family on the train out of Dillon, Bagley spoke to the graduates at 10:30 a.m. under the cool, crisp, expansive, Rocky Mountain sky:

All that this, or any other school of a similar type, can do for its graduates is to start them upon the right track in the acquisition of skill. But do not make the mistake of assuming that this is a small and unimportant thing. If this school did nothing more than to start its graduates on the right track, it would still, by that act alone, repay tenfold the cost of its establishment and maintenance. Three-fourths of the failures in a world that seems full of failures owe their existence to nothing more or less than a wrong start.⁸³

In its coverage of Bagley's speech and his imminent departure, *The Dillon Examiner* expressed regret at his leaving and reported that he had made an enviable record at the college, had become well known throughout the state, and had strengthened the normal college and therefore improved the public school system of all of Montana.⁸⁴

Four mornings following his speech, on Tuesday, June 26th, Bagley, his wife, and their now four year-old daughter, Ruth Winger, departed for Los Angeles where they were to visit Bagley's older sister, Ruth Gertrude Bagley. Ruth Gertrude, who had graduated in 1905 from the University of California at Berkeley with a Master's degree in English, would later study toward a doctoral degree at the University of Illinois and Columbia but would never finish.⁸⁵ After a short visit with Ruth Gertrude in southern California, the family was on to Oswego and one of the most well known teacher training institutes in the entire nation. Without question, Bagley's graduate preparation and his years in Dillon had propelled him toward a successful career and had made for a good start.

¹ For two very complete discussions of changes in American schools during the latter part of the 19th century and the early 20th century, see Lawrence A. Cremin, *The Transformation of the School: Progressivism in American Education, 1874-1957* (New York: Vantage Books, 1961); and Herbert M. Kliebard, *The Struggle for the American Curriculum, 1893-1958*, 2nd ed. (New York: Routledge, 1995).

² See, for example, William Torrey Harris, *Report of Committee on Psychological Inquiry: The Psychology of the Imitative Functions in Childhood as Related to the Process of Learning*, published 1894. See Teachers College, The Milbank Memorial Library, History of Education Collection; see also William Torrey Harris, *Psychologic Foundations of Education: An Attempt to Show the Genesis of the Higher Faculties of the Mind* (New York: D. Appleton and Company, 1898), pp. 134-144.

³ See, for example, J. C. Flugel *A Hundred Years of Psychology, 1833-1933* (New York: The Macmillan Company, 1933), pp. 176-190.

⁴ See, for example, A. A. Roback *History of American Psychology* (New York: Library Publishers, 1952), pp. 180-191.

⁵ A. A. Roback *History of American Psychology* (New York: Library Publishers, 1952), pp. 180-181.

⁶ See Melvin H. Marx and William A. Hillix, *Systems and Theories in Psychology*, 2nd ed. (New York: McGraw-Hill Book Company, 1963), p. 113.

⁷ A. A. Roback, *History of American Psychology* (New York: Library Publishers, 1952), p. 184.

⁸ See, for example, Duane P. Schultz and Sydney Ellen Schultz, *A History of Modern Psychology* 6th ed. (Fort Worth, TX: Harcourt Brace College Publishers, 1996), pp. 100-121.

⁹ See, for example, G. Stanley Hall, "Child Study at Clark University: An Impending New Step," *The American Journal of Psychology* 14 (1903): 96-106.

¹⁰ See, for example, John Dewey, *The Child and the Curriculum* (Chicago: The University of Chicago Press, 1902).

¹¹ See, for example, A. T. Poffenberger, *James McKeen Cattell: Man of Science, 1860-1944* (New York: Arno Press, 1973); also, see Edwin G. Boring, *A History of Experimental Psychology*, 2nd ed. (New York: Appleton-Century-Crofts Inc., 1950), pp. 532-540; for more information on the study of individual differences and its relation to the search for intelligence, see James J. Jenkins and Donald G. Paterson, *Studies in Individual Differences: The Search for Intelligence* (New York: Appleton-Century-Crofts, Inc., 1961).

¹² Duane P. Schultz and Sydney Ellen Schultz, *A History of Modern Psychology*, 6th ed. (Fort Worth, TX: Harcourt Brace College Publishers, 1996), pp. 119-120.

¹³ For a detailed account of Thorndike's life and career, see Geraldine Joncich Clifford, *Edward L. Thorndike: The Sane Positivist* (Middletown, CT: Wesleyan University Press, 1968). See pages 149-172 for the birth of his career and the application of psychology to education.

¹⁴ Edwin G. Boring, *A History of Experimental Psychology*, 2nd ed. (New York: Appleton-Century-Crofts Inc., 1950), p. 551.

¹⁵ A. A. Roback, *History of American Psychology* (New York: Library Publishers, 1952), pp. 215-221.

¹⁶ John Dewey, "The Reflex Arc Concept in Psychology," *The Psychological Review* 3 (July 1896): 357-370; see, also, Duane P. Schulz and Sydney Ellen Schulz, *A History of Modern Psychology* 6th ed. (Fort Worth, TX: Harcourt Brace College Publishers, 1996), pp. 161-163.

¹⁷ See, for example, E. B. Titchener, "The Postulates of a Structural Psychology," *The Philosophical Review* 7 (September 1898): 449-465; see Titchener's footnote directed toward Dewey on page 451-452; See, also E. B. Titchener, "Structural and Functional Psychology," *The Philosophical Review* 8 (1899): 290-299; See Also A. A. Roback *History of American Psychology* (New York: Library Publishers, 1952), pp. 213-215.

¹⁸ For a discussion of this same division in psychology which depicted the phrases "phenomenological viewpoint" and "mechanistic viewpoint" in place of structuralism and functionalism, see Ruth Eleanor Grush Turner, "A Study of the Development of Educational Psychology," (unpublished doctoral dissertation, University of Idaho, 1967), p. 11-14.

¹⁹ See Edwin G. Boring, *A History of Experimental Psychology*, 2nd ed. (New York: Appleton-Century-Crofts Inc., 1950), pp. 410-415; See also Erwin V. Johannigmeier, "William Chandler Bagley's Changing Views on the Relationship Between Psychology and Education," *History of Education Quarterly* 9 (Spring 1969): 6.

²⁰ Bagley's transcript from his summer quarter in Chicago lists courses in the Introduction to Psychology, the Psychology of Childhood, the Early History of Education, and the Physiology of Nerves and Muscles.

²¹ I. L. Kandel, *William Chandler Bagley: Stalwart Educator* (New York: Teachers College, Columbia University Bureau of Publications, 1961), p. 8.

²² Edwin G. Boring, *A History of Experimental Psychology*, 2nd ed. (New York: Appleton-Century-Crofts Inc., 1950), pp. 540-542.

²³ William C. Bagley, "A Study in the Correlation of Mental and Motor Ability in School Children," (unpublished master's thesis,

University of Wisconsin, Madison, 1898); After revision, the thesis was published in *The American Journal of Psychology* 12 (1900-1901): 193-205.

²⁴ The study of individual differences can be traced back to Sir Francis Galton in England. Galton, a cousin of Charles Darwin, initiated the interest in individual differences after his cousin published the *Origin of Species*. The functionalist movement in psychology was highly affected by Social Darwinism. In many ways, functionalism was a peculiarly British and American invention. Wundt, in Germany, would have nothing to do with Cattell's interest in individual differences. When Cattell approached him with the idea, he commented that the idea was *ganz amerikanisch*, or "typically American." See J. C. Flugel, *A Hundred Years of Psychology, 1833-1933* (New York: The Macmillan Company, 1933), p. 208.

²⁵ For an attempt to bridge the gap between these two schools of psychology, see Mary Whiton Calkins, "A Reconciliation Between Structural and Functional Psychology," *The Psychological Review* 8 (March 1906): 61-81.

²⁶ The list of Titchener's graduates can be found in a biographical tribute by one of Titchener's students, Edwin G. Boring. See "Edward Bradford Titchener, 1867-1927," *The American Journal of Psychology* 38 (October 1927): 489-506.

²⁷ Although Titchener envisioned a time when both branches of psychology could work in harmony or be found in the same psychologist, structuralism, of course, would remain as the more "pure" of the two psychologies. See Titchener's "The Problems of Experimental Psychology," *The American Journal of Psychology* 16 (1905): 223.

²⁸ William C. Bagley, "Some Master Teachers I Have Known," *Educational Administration and Supervision* 22 (September 1936): 435-436.

²⁹ William C. Bagley, "Some Master Teachers I Have Known," *Educational Administration and Supervision* 22 (September 1936): 435-436.

³⁰ Interestingly, another member of the group that founded the Essentialist Committee, Guy Whipple, also studied under Titchener at the same time as Bagley.

³¹ E. B. Titchener, *A Primer of Psychology* (New York: The Macmillan Company., 1899).

³² William C. Bagley, "Syllabus of Five Lectures on Educational Psychology," *Normal College Bulletin of the Montana State Normal College* 4 (April 1903): 1. All bulletins were obtained from the Western Montana College Archives, Lucy Carson Library, private collection.

³³ Bagley described the importance of consciousness and its component elements in Dr. W. C. Bagley and Miss B. F.

Huntsmann, "Courses of Instruction: Psychology and Professional Training," *Normal College Bulletin of the Montana State Normal College* 4 (April 1903): 4-5. All bulletins were obtained from the Western Montana College Archives, Lucy Carson Library, private collection.

³⁴ See Erwin V. Johanningmeier, "William Chandler Bagley's Changing Views on the Relationship Between Psychology and Education," *History of Education Quarterly* 9 (Spring 1969): 23.

³⁵ William C. Bagley, "The Apperception of the Spoken Sentence: A Study in the Psychology of Language," (doctoral dissertation, Cornell University, 1900); See also "The Apperception of the Spoken Sentence: A Study in the Psychology of Language," *The American Journal of Psychology* 12 (1900-1901): 80-130.

³⁶ Apperception was a Herbartian term that many psychologists used as a reaction against the mere recall of facts in a mechanical fashion that had categorized research related to the "faculties of the mind." Apperception could be described today as a conglomeration of understanding, perceiving, knowledge acquisition, memory, and meaning making. For a more complete description of this complex concept, see Charles De Garmo, *Herbart and the Herbartians* (New York: Charles Scribner's Sons, 1896), p. 8-11, 166-179.

³⁷ For a one page summary of Bagley's dissertation, written by him, see *The Philosophical Review* 10 (1901): 314-315.

³⁸ I. L. Kandel, *William Chandler Bagley: Stalwart Educator* (New York: Teachers College, Columbia University Bureau of Publications, 1961), p. 6-8.

³⁹ See Erwin V. Johanningmeier, "A Study of William Chandler Bagley's Educational Doctrines and His Program for Teacher Preparation," (doctoral dissertation, University of Illinois, 1967), p. 18. Johanningmeier downplays the importance of Titchener on Bagley's thinking and points toward Michael Vincent O'Shea as the more influential of the two on Bagley. However, the significant resemblance of Bagley's writing, especially his course descriptions from the Dillon years and his 1905 *The Educative Process*, to the thinking of Titchener indicates that both Titchener and O'Shea affected Bagley's later curriculum positions.

⁴⁰ William C. Bagley, "The Apperception of the Spoken Sentence: A Study in the Psychology of Language," *The American Journal of Psychology* 12 (1900-1901): 92-93.

⁴¹ A common practice by Titchener was to publish his students' doctoral dissertations in *The American Journal of Psychology*. Many of these dissertations appeared just months after they had been completed at Cornell. The appearance of Winger's article close to the end of her doctoral work suggests that the study had been her dissertation topic.

⁴² The study appeared with a footnote, written by Titchener, which stated that Winger had become ill and would not be able to return to her laboratory studies in the near future. See Florence Winger

Bagley, "An Investigation of Fechner's Colors," *The American Journal of Psychology* 13 (1902): 488-525.

⁴³ Erwin V. Johanningmeier, "A Study of William Chandler Bagley's Educational Doctrines and His Program for Teacher Preparation," (doctoral dissertation, University of Illinois, 1967), p. 19.

⁴⁴ See *The Dillon Examiner, The Official Paper of Beaverhead County* 16 (August 17, 1902): 2.

⁴⁵ William C. Bagley, *The Educative Process* (New York: The Macmillan Company, 1905), p. 185.

⁴⁶ William C. Bagley, *Determinism in Education: A Series of Papers on the Relative Influence of Inherited and Acquired Traits in Determining Intelligence, Achievement, and Character* (Baltimore, MD: Warwick and York, Inc., 1925); see also Steven Selden, *Inheriting Shame: The Story of Eugenics and Racism in America* (New York: Teachers College Press, 1999), pp. 117-121.

⁴⁷ William C. Bagley, "An Essentialist's Program for the Advancement of American Education," *Educational Administration and Supervision* 24 (April 1938): 241-156.

⁴⁸ With the use of the word traditional, I am not referring to the more contemporary positions of Mortimer Adler and E. D. Hirsch. More specifically, I am alluding to the predominant teaching practices of the 19th century. See, for example, David B. Tyack, *The One Best System: A History of American Urban Education* (Cambridge, MA: Harvard University Press, 1974), pp. 39-59.

⁴⁹ R. L. Polk and Company, *Dillon City Directory and Beaverhead County Directory* (Helena, MT: R. L. Polk and Company, 1906), p. 17.

⁵⁰ "City and Vicinity," *The Dillon Tribune*, 24 August 1902; "Qualifications of a Principal," *The Dillon Tribune*, 29 August 1902; "The City and County," *The Dillon Examiner*, 27 August 1902.

⁵¹ "School Board Meets," *The Dillon Examiner*, 7 January 1903; "Is He the Principal?," *The Dillon Tribune*, 9 January 1903; "Another Board Meeting," *The Dillon Tribune*, 23 January 1903.

⁵² "Another Board Meeting," *The Dillon Tribune*, 23 January 1903.

⁵³ "The Normal Report," *The Dillon Examiner*, 9 December 1903; "Public School Faculty," *The Dillon Tribune*, 22 May 1903.

⁵⁴ Montana State Normal School, *Fifth Annual Catalogue of the Montana State Normal School* (Dillon, MT: Dillon Examiner Print, 1902), pp. 14-15; Montana State Normal College, *Sixth Annual Catalogue of the Montana State Normal College* (Dillon, MT: Dillon Examiner Print, 1903), pp. 17-23.

- ⁵⁵ Edward F. Spiegle, "A Historical Study of the Formation and Early Growth of Western Montana College of Education," (unpublished master's thesis: Western Montana College of Education, 1958), pp. 56-60.
- ⁵⁶ Montana State Normal College, *Sixth Annual Catalogue of the Montana State Normal College* (Dillon, MT: Dillon Examiner Print, 1903), pp. 7-8.
- ⁵⁷ Faculty Meeting Minutes, Lucy Carson Library Archives and Registrar's Archives of Western Montana College, 23 February 1903 through 21 May 1903, Dillon, Montana.
- ⁵⁸ History Statistics Studies of Western Montana College, n. d., n. p., private collection.
- ⁵⁹ "W. C. Bagley," *The Intermountain Educator* 1 (July 1906): 332.
- ⁶⁰ "The Montana State Normal College," *Normal College Bulletin*, 4 April 1903, p. 1.
- ⁶¹ "The Montana State Normal College," *Normal College Bulletin*, 4 April 1903, p. 1.
- ⁶² "The Montana State Normal College," *Normal College Bulletin*, 4 April 1903, p. 2.
- ⁶³ "The Montana State Normal College," *Normal College Bulletin*, 4 August 1903, p. 1-5.
- ⁶⁴ "The Montana State Normal College," *Normal College Bulletin*, 4 August 1903, p. 6.
- ⁶⁵ William C. Bagley, *The Educative Process* (New York: The Macmillan Company, 1905), p. 185; "The Montana State Normal College," *Normal College Bulletin*, 4 August 1903, p. 4.
- ⁶⁶ See Michael Vincent O'Shea, *Education as Adjustment* (New York: Longmans, Green, and Company, 1903); see also "Dr. Bagley's New Book Favorably Received," *The Dillon Examiner*, 4 October 1905.
- ⁶⁷ William C. Bagley, *The Educative Process* (New York: The Macmillan Company, 1905), p. 22.
- ⁶⁸ William C. Bagley, *The Educative Process* (New York: The Macmillan Company, 1905), p. 44.
- ⁶⁹ William C. Bagley, *The Educative Process* (New York: The Macmillan Company, 1905), p. 46.
- ⁷⁰ William C. Bagley, *The Educative Process* (New York: The Macmillan Company, 1905), p. 48.
- ⁷¹ William C. Bagley, *The Educative Process* (New York: The Macmillan Company, 1905), pp. 50-51.
- ⁷² William C. Bagley, *The Educative Process* (New York: The Macmillan Company, 1905), pp. 56-57.
- ⁷³ Raymond E. Callahan, *Education and the Cult of Efficiency: A Study of the Social Forces That Have Shaped the Administration of the Public Schools* (Chicago: The University of Chicago Press, 1962).
- ⁷⁴ William C. Bagley, *The Educative Process* (New York: The Macmillan Company, 1905), pp. 58-59.
- ⁷⁵ William C. Bagley, *The Educative Process* (New York: The Macmillan Company, 1905), p. 60.
- ⁷⁶ Raymond E. Callahan, *Education and the Cult of Efficiency: A Study of the Social Forces That Have Shaped the Administration of the Public Schools* (Chicago: The University of Chicago Press, 1962); Herbert M. Kliebard, *The Struggle for the American Curriculum, 1893-1958* (New York: Routledge, 1995), pp. 77-105; Paul D. Chapman, *Schools as Sorters: Lewis M. Terman, Applied Psychology, and the Intelligence Testing Movement, 1890-1930* (New York: New York University Press, 1988).
- ⁷⁷ William C. Bagley, "Fundamental Distinctions Between Liberal and Vocational Education," *National Education Association Addresses and Proceedings* (1914): 61-70.
- ⁷⁸ William C. Bagley, "Progressive Education is Too Soft," *Education: A Monthly Magazine* 60 (October 1939): 75-81.
- ⁷⁹ William C. Bagley, *The Educative Process* (New York: The Macmillan Company, 1905), p. 184-185.
- ⁸⁰ "Oswego Wants Dr. Bagley," *The Dillon Examiner* 24 January 1906.
- ⁸¹ Dorothy Rogers, *Oswego: Fountainhead of Teacher Education* (New York: Appleton-Century-Crofts, Inc., 1961).
- ⁸² Faculty Meeting Minutes, Lucy Carson Library Archives and Registrar's Archives of Western Montana College, 21 December 1904 through 3 January 1906, Dillon, Montana.
- ⁸³ "Closing College Exercises, Notable Commencement Address Delivered to Normal Graduates Friday Morning By Dr. W. C. Bagley," *The Dillon Examiner*, 27 June 1906.
- ⁸⁴ "Closing College Exercises, Notable Commencement Address Delivered to Normal Graduates Friday Morning By Dr. W. C. Bagley," *The Dillon Examiner*, 27 June 1906.
- ⁸⁵ "San Diego State Teachers College and Announcement of Courses, 1932-33," *Bulletin* (Sacramento, CA: Harry Hammond State Printer, 1932), p. 5; San Diego State Special Collections.