

The “Amherst Method”: The Origins of the Dewey Decimal Classification Scheme

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Although a debate about the origins of the Dewey Decimal Classification Scheme has been going on for generations, historical consensus remains elusive. This paper contributes new information to the historiography on the origins of the scheme: (1) by grounding an account of Melvil Dewey's thinking as he was crafting the Decimal Classification on an analysis of a larger body of sources than previous classification historians have consulted; and (2) by expanding and deepening historical understanding of the contextual forces influencing his decisions on the classification structure.

In 1996 OCLC published the twenty-first edition of the 120-year-old Dewey Decimal Classification. By that time over 200,000 libraries in 135 countries were using the classification to organize their collections. In the United States alone, it was being used by 95 percent of public and school libraries, 25 percent of special libraries, and 25 percent of academic libraries (mostly at small colleges). From the slim forty-four-page book Melvil Dewey initially published in 1876, the scheme grew to over four thousand pages in its twenty-first edition. It is probably fair to say that at some time in their lives, a substantial majority of Americans living in the twentieth century have used the system. Few would argue the scheme has not been influential, yet our knowledge of its origins remains unsettled.

A debate surrounding the origins of the Decimal Classification has been going on for generations; reasons for a lack of consensus are not hard to find. Dewey himself established some parameters by dropping inconsistent hints during his lifetime and scattering inconclusive bits of information throughout his publications. In a 1920 *Library Journal* article entitled “Decimal Classification Beginnings,”¹ for example, he described the moment of inspiration for the scheme in 1873. At the time, he was

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both student and assistant librarian at Amherst College and deeply involved in conceptualizing the best classification system for any library. "After months of study," he wrote, he was listening to a Sunday sermon, and

while I lookt stedfastly at [the pulpit] without hearing a word, my mind absorbd in the vital problem, the solution flasht over me so that I jumpt in my seat and came very near shouting "Eureka!" It was to get absolute simplicity by using the simplest known symbols, the arabic numerals as decimals, with ordinary significance of nought, to number a classification of all human knowledge in print; this supplemented by the next simplest known symbols, a, b, c, indexing all heds of the tables, so that it would be easier to use a classification with 1000 heds so keyd than to use the ordinary 30 or 40 heds which one had to study carefully before using.

Because the quote is so colorful—especially in the simplified form of spelling Dewey used variously throughout his life—scores of cataloguing teachers assigned thousands of library school students to read the article over subsequent decades.

Despite its wide circulation, however, the article fails to clarify the classification's origins. Dewey did acknowledge a debt to Sir Francis Bacon (who nearly three centuries earlier had hypothesized that all knowledge derived from memory, reason, and imagination, and that these three invariably produced works of history, philosophy, and *belles lettres*), but he failed to locate his scheme in the continuum of library classification history and thus generally ignored the contributions and influences of his predecessors.

Ever since, library historians have been trying to clarify and contextualize the classification's origins. In the last half-century they have seized upon one or more of the informational tidbits Dewey left behind, assigned each a relative value, and drawn upon these values to create their unique interpretations of the scheme's beginnings. On one thing they all agree, however. All believe Dewey did not create a decimal classification out of whole cloth, and for the past half-century the historiography addressing its origins has tried to identify debts Dewey owed predecessors and contemporaries in classification history that he at one time or another acknowledged, overlooked, forgot, allegedly even deliberately ignored.

The debate was initiated in 1945 by Kurt F. Leidecker. In the course of researching a biography of William Torrey Harris in the early 1940s, Leidecker discovered what he believed was a debt Dewey owed his protagonist. As a superintendent of the St. Louis Public Schools from 1868

to 1880, Harris was also responsible for the St. Louis Public School Library. There he crafted a classification scheme from Bacon's original structure by inverting and slightly expanding it. He summarized his scheme in an 1870 *Journal of Speculative Philosophy* article that, Leidecker notes, Dewey read in spring of 1873, while contemplating a new system for Amherst. To prove it, Leidecker quotes a 9 May 1873 letter Dewey wrote to Harris, in which he inquired about Harris's system. Concerning Dewey's debt to Harris, Leidecker is diplomatic, perhaps even reluctant to besmirch the reputation of librarianship's most famous pioneer. "Complete originality was never claimed by Dewey in the establishment of his library classification system," he writes, but Leidecker's irritation with Dewey for only "somewhat ambiguously" acknowledging his debt to Harris is quite evident.²

The next contributor to the debate was Eugene E. Graziano, who had read Leidecker's biography of Harris. Because Dewey had adapted so heavily from Harris, and because Harris had studied the philosophy of G. W. F. Hegel, Graziano concluded that Hegel's philosophy, whether Dewey knew it or not, constituted the philosophical foundation on which the Decimal Classification ultimately was based. In a master's thesis done at the University of Oklahoma and in an article he published subsequently in *Libri* in the 1950s,³ Graziano demonstrates convincingly how Harris's classes were influenced by his exposure to and belief in Hegel's philosophy. Like Leidecker, however, Graziano seems reluctant to challenge Dewey's status as professional icon. He is gracious toward Dewey's relative lack of attribution to Harris's contribution to the classification, but amused at Dewey's apparent ignorance of its own underlying philosophical base.

John Maass, however, is neither gracious toward Dewey nor awed by his historic stature. While doing research on the United States's Centennial Exhibition of 1876 in Philadelphia (at which, Maass correctly notes, the American Library Association was founded and the newly published Decimal Classification much discussed), Maass studied William Phipps Blake, a geologist and mining engineer whom the Centennial Commission had engaged in 1872 to organize its exhibition. On 25 May 1872, Maass notes, Blake submitted a scheme to the commission that organized the exhibition into ten "departments," each of which was subdivided into ten "groups," each of which was further divided into ten "classes." Maass notes that Blake's classification was published as a leaflet in February 1873 and likely was sent to Amherst. He also notes that a forty-two-page pamphlet elaborating the scheme was "mailed to professional men throughout the U.S." a month later. Based on this evidence, Maass argues that "Dewey copied that decimal notation from Blake . . . and cunningly covered his tracks." Although Maass cannot

cite evidence directly linking Dewey to Blake or his publications, he nonetheless concludes, "It is certain beyond a shadow of a doubt that Melvil Dewey studied this pamphlet by Blake (dated February 27th, 1873) and derived from it the draft of his Decimal Classification (dated May 8th, 1873)."⁴

The most recent and most thoroughly researched entry into the historiographical debate surrounding the origins of the scheme is John Comaromi's book, *The Eighteen Editions of the Dewey Decimal Classification* (1976), which many scholars regard as the most definitive work so far on the subject. In his first chapter Comaromi evaluates arguments made by Leidecker, Graziano, and Maass, but for additional clues he also analyzes the preface to Dewey's first edition of the DDC, the ideas of other classification experts like Leo LaMontagne, W. C. Berwick Sayers, and Henry Evelyn Bliss,⁵ and various classification systems already in use at the time Dewey crafted the decimal scheme—especially a system devised by Jacob Schwartz at the New York Mercantile Library that Leidecker, Graziano, and Maass had not discussed. In addition, Comaromi studied some primary source material in the files of Forest Press (twentieth-century publishers of new editions of the DDC) in Albany and New York, and in those boxes and files in the Dewey Papers at Columbia University that an archivist had labeled "Decimal Classification." Regarding the latter, Comaromi indicates, "Information pertaining to the early years [of the DDC] . . . is scanty."

Comaromi judges the evidence Maass presents for his thesis "inconclusive," but finds Leidecker and Graziano's arguments highly plausible. He acknowledges Dewey probably drew on strong points from the classification schemes of Harris and Schwartz, the former because he used Arabic numerals for classes (and within classes arranged materials alphabetically by author surname), the latter because he used Arabic numerals for first and all subsequent divisions beyond the major classes to which he assigned numbers. Comaromi also acknowledges that Hegel's philosophy constituted the theoretical basis for Harris's system, and because Harris's system was "the most fruitful source of Dewey's conception," he concludes, Hegel "provided the philosophical underpinnings" of Dewey's system.

But Comaromi introduces two new elements absent from previous discussions. First, he notes that in the preface to the DDC's first edition Dewey acknowledges an unspecified debt to Natale Battezzati, author of *Nuovo Sistema di Catalogo Bibliografico Generale*, published in Milan in 1871. Comaromi argues, however, that Dewey here refers to Battezzati's recommendation for an early cataloguing-in-publication system for all books, and not to the notion of assigning Arabic numerals in decimals to classify books. Second, Comaromi guesses that "members of the

Amherst faculty and experts elsewhere probably provided the substance and order of most of the divisions and sections."⁶ Curiously, however, he does not elaborate, nor does he pursue the possibility in further research.

Although Comaromi's work constitutes the most complete analysis of the origins of the Dewey Decimal Classification, it still falls short of definitive for two reasons: (1) failure to widen the scope of his research to include the socio-institutional context in which Dewey developed his scheme; and (2) failure to analyze all relevant primary source materials—in this case bits of evidence scattered throughout more than one hundred boxes of Dewey Papers Comaromi did not peruse. The following is an attempt to contribute further to the historiography on the origins of the scheme—on the one hand by grounding an account of Dewey's thinking as he crafted the Decimal Classification on an analysis of a larger body of primary sources, on the other by expanding and deepening our understanding of the contextual forces influencing his decisions on the classification's structure.

In order to reduce the debt he was accumulating at Amherst, in the fall term of his junior year Dewey agreed to keep account books for the college library. For Dewey the opportunity opened up a whole new world. By this time he had already decided to dedicate his life to educational reforms but had not yet identified which reforms nor located the institutional arena in which he would effect them. After joining the library's staff, however, he quickly recognized what he thought was the library's potential for educating the masses. He immediately volunteered to expand his responsibilities, and then tackled them all with the intensity of a crusader.

First he read systematically the limited amount of literature on libraries available to him, keeping notes on most of his reading and re-reading much of it twice. For example, in January 1873 he read Charles C. Jewett's "A Plan for Stereotyping Titles."⁷ Dewey liked Jewett's recommendation for building a common catalogue. "This would secure accuracy & uniformity . . . , save expense after the first few libraries were catalogued," and because some central institution could print from its plates "a full & perfectly accurate catalog of all books in the libraries of America . . . a Universal Catalog would be feasible."⁸

In February he visited Boston to study the Boston Public Library, the Boston Athenaeum, and the Harvard College Library. In his diary Dewey recorded that Athenaeum Director Charles Ammi Cutter was at the time "in the throes of catalog printing." Dewey peppered him with questions, especially concerning classification. "He puts the books on the horse under 'horse' & not under 'zoology.'" Dewey believed most people with only rudimentary reading skills would think the same way.⁹

When Dewey returned to Amherst, he reviewed the library's operation and arrangement more carefully. He also continued to pore over library literature. On 22 February he read William T. Harris's 1870 *Journal of Speculative Philosophy* article on "Book Classification." After carefully considering Harris's discovery that books arranged alphabetically under each subject forced a relative rather than fixed location, Dewey noted, "of this I am inclined to be a friend."¹⁰

Then, on 7 March, he read a pamphlet he had "blundered on" in the collection entitled *A Decimal System for the Arrangement and Administration of Libraries*. It had been privately printed in 1856 and donated to the library by its author, Nathaniel Shurtleff, a Boston Public Library employee. "Of course [I] took it home. My heart is open to anything that's either decimal or about libraries."¹¹ Dewey admitted liking Shurtleff's concept of marrying a decimal system to library administration and arrangement, but criticized its details because he thought the author laid "altogether too much stress" on the decimal system at the expense of efficiency and saving time. A second reading on 29 April did not change his mind. He thought some of the ideas "out of date," and noted that at the Boston Public Library "where it originated," the library had quickly "abandoned the unfeasible part of the plans." He later wrote, "My idea is a brief Index for finding a known work & a full scientific for classed catalog showing the resources in any given subject & having a full alphabetical index with numerical reference to the scheme & catalog."¹²

Further reading led to further refinement of a developing idea. He disliked the New York State Library's system of organizing its collections—"They arrange the books alphabetically paying no attention to subjects"—but liked the practice of recording the library's holdings on cards (one card per title) that Jacob Schwartz used at the New York Mercantile Library. On 20 February he also wrote Schwartz that he was "favorably impressed" with the classification scheme Schwartz had created for the Mercantile. Five days later Schwartz thanked him for the compliment and encouraged Dewey to adopt his classification scheme for Amherst.¹³

Cutter, Harris, Shurtleff, Jewett, and Schwartz—all had developed firm ideas about classification schemes or cataloguing practices which Dewey thought showed strengths and weaknesses, and in the spring the schemes and practices used by all were swimming around his head as he contemplated the most useful methods of bibliographic organization suitable not only for Amherst but also for all libraries. Such was the context in which he "came very near shouting 'Eureka!'" during that Sunday sermon and concluded to "use *decimals* to number a classification of all human knowledge in print." His approach was characteristic of much

previous personal behavior and most subsequent professional behavior. Adopt from existing practice only those features that promised to make a new system easy to use, and centralize that system to avoid duplication of effort. At this point the scheme as he conceived it joined strong points from Cutter, Harris, Shurtleff, and Schwartz. Dewey's contribution to classification was in joining and adjusting them, not in creating anything new.

He quickly outlined the first draft of his decimal scheme and submitted it to the Amherst College Library Committee on 8 May 1873.¹⁴ Conceptually, it was constructed on the premise that all knowledge could be divided into nine main classes (he had originally proposed ten, but abandoned that because use of ten added another digit to one of the numbers and reduced the scheme's simplicity). Each of the main classes could be subdivided into nine more sub-classes by adding a decimal to separate the sub-class from the main class signifier. Further divisions of sub-classes could be added by assigning a second digit to be placed after the first sub-class signifier. "Thus the sub-classes may be increased in any part of the library without limit; each additional decimal place increasing the minuteness of classification tenfold." Within each of these classes, Dewey then proposed a subarrangement alphabetically by author under that class, but if this included more than one book by that author, books would "stand in the same order on the shelves as the titles of the same in the catalogue." Thus, the call number for any item in the scheme as Dewey originally conceived it would consist of a single-digit class number to the left of a decimal point, followed by one or more digits to the right of the decimal point, under which cataloguers would add author surnames. "Readers will call for books thus located by their 'class number' (instead of 'shelf')," he explained, "and author's name as printed in the catalogue (instead of 'number on shelf.')" Books of a general character on more than one topic—like a dictionary of science—would receive no subclassification but would sit on the shelf with only the main class number. The committee agreed in principle with Dewey's proposal and encouraged him to pursue it for Amherst's collections.

Although Dewey had settled on a basic outline for his scheme, he still sought outside advice, especially for identification of appropriate classes. On 9 May he wrote to William T. Harris for more information on his classification scheme. Harris responded four days later. "Perhaps the main advantages of my scheme are my plan of numbering such classes and the ease with which one masters the details after getting a glimpse of the general plan," he told Dewey. "It gives in the classified index a view of all the literature on a given subject & in the alphabetical index all the advantages of ordinary catalogues."¹⁵

Harris had built his scheme on two sources: (1) ideas of Sir Francis Bacon, who had argued that the three faculties of the human mind—memory, imagination, and reason—produced three categories of learning—history, poetry, and philosophy—each of which could be further subdivided; and (2) the ideas of G. F. W. Hegel, who inverted Bacon's order to give a more prominent role to philosophy, and from which the rest of the structure follows. From philosophy (the science containing all sciences), Harris saw a natural structure of knowledge progressing to theology (the science of the absolute), government, philology, nature (including mathematics, physics, chemistry, and the natural sciences), the useful and the fine arts, and finally, geography, biography, and history.¹⁶

That Dewey largely tapped Harris's structure as the broad blueprint for his own decimal scheme (in order—philosophy, theology, sociology, philology, natural science, useful arts, fine arts, literature, and history) is hardly debatable, but in defining and identifying a hierarchy of divisions and sections he created beyond that structure Dewey looked elsewhere for guidance. His own priorities were dictated by a commitment to simplicity. "My ideal," he recorded in his reading notebook on 19 June 1873, "is a brief index for finding a known work & a full scientifically classed catalog, showing the resources on any given subject & having a full alphabetical index with numerical references to the scheme & catalog." In April 1874 he noted in his diary: "Conciseness in statement as much as possible consistent with clearness will be the first thing. Careful arranging in the right order for easy understanding & reference, & most important of all their substance." "Here the most rigid economy must rule; our free libraries will all need to exercise their straight economy & any system that does not allow such saving must be defeated for users."¹⁷

Dewey clearly demanded first and foremost that his decimal scheme be simple and concise; beyond that, however, he looked mostly to the Amherst College community for guidance in identifying and arranging divisions and sections under the broad Bacon-Hegel structure of knowledge that Harris used and he himself found acceptable. Guidance—both direct and indirect—came from two sources: (1) the Amherst College tradition into which Dewey had assimilated and the curriculum through which he passed between 1870 and 1874; and (2) the Amherst faculty (especially Julius H. Seelye and John W. Burgess) and the texts they assigned in their courses. And because Amherst hired him as Associate Librarian after he graduated in June 1874, Dewey had ample opportunity to exploit both while he worked on the Decimal Classification.

First, the Amherst College tradition and curriculum. In 1875 Amherst College was a small, comfortable, almost family-like school nestled in the scenic Connecticut Valley. Founded in 1821, it was strongly tied to orthodox Christianity, and much more interested in discipline than

research and intellectual inquiry. One of the jobs of any nineteenth-century institution of higher education was to build character, and at Amherst—like most other New England colleges—the building blocks used to construct character came from a combination of Protestant orthodoxy and Western culture and classics. The curriculum was designed to communicate universal truths already known and unquestioned, not to expose students to contemporary political issues or even to sample contemporary literature. It influenced students toward a particular world view, inculcated a definition of the role of education, and identified the rules to which and the authorities to whom they should look in later life for guidance in making sense of their world. The curriculum also reinforced the concept of “mind as vessel”; education was a process by which the student would passively “fill” the “vessel” with the best that a patriarchal White Western (and, of course, Christian) civilization had to offer.¹⁸

That Dewey agreed wholeheartedly with the concept is obvious from his subsequent activities; it formed the foundation for all his educational reform schemes. More important for understanding the origins of the Dewey Decimal Classification, however, the Amherst tradition did nothing to contradict the hierarchy Harris defined for his classification. Because the world as viewed through the eyes of an 1874 Amherst graduate fairly well matched the world as viewed by William Torrey Harris in 1870, Dewey had no philosophical or ideological reservations about its suitability for his scheme. He probably regarded it as “common knowledge” or even “natural,” and so he simply appropriated it. For Dewey the simplicity and efficiency offered by superimposing the decimal system on any suitable general plan was paramount. Harris’s divisions provided what he considered sound educational rationale for a structure of knowledge he would cement into the Decimal Classification. Its moral center was located in “Anglo-Saxonism,” a doctrine that defined “objectivity” and touted the unique virtues, mission, and destiny of the Anglo-Saxon “race.”¹⁹

Student coursework at Amherst was typical for a classical curriculum. Freshmen took Latin and Greek prose composition, geometry, algebra, and trigonometry, and read Cicero, Homer, Livy, and Horace. Sophomores continued reading the Latin and Greek classics, began learning French and German, and took some chemistry. Juniors expanded coverage of Greek and Latin classics, and supplemented these with courses in philosophy, botany, chemistry, and astronomy. Seniors were introduced to psychology, geology, biblical history, logic, constitutional law, political science, and history. Amherst offered few electives, and all of those came in the junior or senior year. Like the rest of his classmates, Dewey looked upon the world reflected in this curriculum as objective

and absolute. He was there to fill his mind with the best that Western civilization had to offer, not to question basic values. And like the Amherst tradition, the Amherst curriculum did little to challenge Harris's structure of knowledge. Between the tradition and the curriculum, Dewey found little to disturb the hierarchy of Harris's arrangement. Both were elements of a cultural milieu that reflected priorities already inherent in the system.²⁰

Amherst faculty who taught the curriculum were a dedicated, albeit conservative and traditional lot. Most were Amherst alumni. Among them Edward Hitchcock taught physical education and hygiene, Elijah Harris' chemistry, Edward P. Crowell, Latin, William S. Tyler and Richard H. Mather, classics, Julius H. Seelye, philosophy, and beginning in 1873 John W. Burgess, history and political science. Most faculty relied upon recitation as a standard method of pedagogy, most honored the tradition of pointing to a moral as each day's assignment was recited, and most thought the truth of life had already been discovered and was located in the Bible. The strength of their convictions was evident everywhere at Amherst and reinforced the doctrine of Anglo-Saxonism Dewey found so natural.²¹

Hitchcock exemplified the Amherst tradition and curriculum. He had graduated from Amherst in 1849, went on to receive an M.D. from Harvard, then returned to Amherst in 1861 to carve out a reputation as the "father of college physical education in America." In and out of class, Hitchcock emphasized that in order to live an efficient, well-balanced life, one had to give proper attention to the body. Underlying this conviction was his belief in the Pauline dictum that the body was temple to the soul. He constantly stressed the importance of exercise, especially to his students who were required to gather in the gym four mornings a week for calisthenics. Hitchcock's ideas about exercise probably had a major influence on the way Dewey treated hygiene and physical education in his classification scheme, including the location of Medicine (610) under Useful Arts (600), and especially the placement of Hygiene (613) and Public Health (614) after Anatomy (611) and Physiology (612) but before *Materia Medica* and Therapeutics (615) and Pathology, Theory and Practice (616). "There is no logical reason" for this order, Comaromi notes, "unless we assume that a normal state of health and how to maintain it should logically precede a pathological or unhealthy state." Without knowing it, Comaromi echoed the message Hitchcock hammered into his students in his classes.²²

Second, Amherst college texts and faculty. Most of Dewey's professors required their students to use textbooks that outlined a structure of knowledge in particular subject areas. Walker Professor of Mathematics and Philosophy Ebenezer Snell, for example, required a natural

philosophy text he had recently revised that was originally written by Denison Olmsted.²³ In his *Introduction to Natural Philosophy* Olmsted divides coverage of the subject into nine parts, each of which he subdivides into chapters. In order, the nine parts include mechanics, hydrostatics, pneumatics, sound, magnetism, frictional (or statical) electricity, dynamical electricity, heat, and light. Dewey took the course—and read the textbook—in his junior year. When he identified subdivisions for Physics (530) two years later (Snell himself says in his preface to the 1871 edition of the textbook that the book’s subject was really about “physics”), Dewey included Mechanics (531), Hydrostatics (532), Pneumatics (533), Acoustics (534), Optics (535), Heat (536), Electricity (537), Magnetism (538), and Molecular Physics (539). Thus, the only changes Dewey made from the textbook he used for Snell’s class were to move the science of light (optics) to follow the science of sound (acoustics—Olmsted had in fact listed these two in that order in his introduction), to add “molecular physics” as a catchall category, and to marry frictional and dynamical electricity into one category titled “electricity” that preceded rather than followed magnetism.²⁴

Dewey was more heavily influenced by Julius H. Seelye and John W. Burgess, in part because their pedagogy contrasted sharply with that of their colleagues. Seelye was regarded by most students as Amherst’s most stimulating teacher. He had graduated from Amherst in 1849 and for the next three years studied at Auburn Theological Seminary under the tutelage of his uncle, Laurens P. Hickok. After a brief stay at the German University of Halle, in 1858 Seelye returned to Amherst, where as professor of philosophy he began dispensing a steady diet of Hickokian thought to his students that one historian characterizes as “a potpourri of Kantian psychology, Puritan ethics, evangelical religion, Calvinist theology, and Hegelian idealism.”²⁵ It was Hickok who turned Seelye into a Hegelian. All his life Seelye worshipped the concept of the state and encouraged a patriotic nationalism.

For his Psychology, Moral Philosophy, and History of Philosophy courses—all of which Dewey took as a senior—Seelye routinely assigned readings from Hickok’s *Empirical Psychology* and *Moral Science* (both of which he was editing into new editions for Ginn & Heath).²⁶ He then engaged his students in discussions of their readings “to develop the power of their thinking.” A former student recalled that Seelye “was eclectic, individualistic, but with a decided bent toward Hegelianism.” It is likely that the Hegelianism to which Dewey was exposed in Seelye’s classes made Harris’s structure of knowledge, heavily influenced as it already was by Harris’s Hegelianism, seem “natural” to Dewey. At this time in his life, it will be remembered, Dewey was still “filling his mind” as an undergraduate in what he perceived to be an absolutist world. That

he probably saw a clear connection between Seelye's and Harris's ways of looking at the world may have made Harris's general plan the most suitable one available in 1874 upon which to superimpose his decimal scheme. At the very least Seelye would have had little reason to object to the broad outlines Harris wove into his classification. Both were Hegelians, and when Dewey called on Seelye for advice, the latter probably felt comfortable with Harris's broad scheme and paid most attention to filling out the divisions and sections.²⁷

On 5 February 1875, for example, Dewey noted in his diary that Seelye "came into the library and helpt me classify books for an hour or more and did a good job for which I was very grateful." On 2 and 7 June Dewey wrote that Seelye had spent part of each day in the library "working on his heads" (i.e., classification subject headings). That Seelye exercised influence over Dewey is obvious from the order in which he ultimately listed and named divisions for Mental Faculties (150) in his decimal scheme—Intellect (151), Sense (152), Understanding (153), Memory (154), Reason (155), Imagination (156), Susceptibility (157), Instincts (158), and Will (159). It is hardly a coincidence that this order bears a striking similarity to the way Hickok arranges his discussion of these subjects in *Empirical Psychology*. Under a "First Division" Hickok titled "Intellect," for example, he discusses "Sense" in the first chapter, "Understanding" in the second (where "Imagination" receives four pages of attention), "Reason" in the third. His "Second Division" is titled "Susceptibility" (in which he discusses "Instincts"), and his "Third Division" covers "Will."

An even more striking connection between text/faculty and the structure of the DDC's first edition can be found in the way Dewey treated Temperaments (137), which Comaromi notes was based on an already outdated theory that differences among body fluids produced particular human temperaments. In a section entitled "Differences of Temperament" within a larger chapter on "Anthropology," Hickok identifies four basic temperaments—"sanguine," "melancholic," "choleric," and "phlegmatic." Hickok believed the sanguine temperament was most influenced by the nervous system, the choleric temperament by the muscular system, and the melancholic and phlegmatic by the digestive system.²⁸

Like Seelye, John W. Burgess worked actively with Dewey on listing and naming the Decimal Classification's divisions and sections. Burgess introduced Dewey to academic research and the seminar method of instruction. Known to his students as "Weltgeist," Burgess taught mostly seniors his first year. He had graduated from Amherst in 1867, then studied history and political science in Germany. Burgess, like Seelye, was convinced by Hegel that private property was the logical conclusion

of human development, and that the law proceeded from it. Like Seelye he believed with Hegel that history represented an unfolding story of the development of the state that was authored by God and which, in its most absolute form, had been developed by Teutonic peoples. When Burgess brought this German training back to a college steeped in religious orthodoxy, only his ability to lace a strong sense of patriotism through a belief in Calvinism, capitalism, and the American form of democracy made his ideas palatable to his colleagues. America, Burgess believed, was the most perfect realization of humankind's quest for liberty, in large part because a direct correlation existed between Protestant successes and the advance of democracy.²⁹

While Dewey was identifying and refining divisions and sections in Sociology (300) and History (900) between 1873 and 1875, Burgess had assumed responsibility for teaching the Amherst College freshmen Greek and Roman history. Unlike his predecessors who taught it "as contributory to the linguistic discipline," however, Burgess looked at Greek and Roman history as a "record of political development." In 1874-5 Burgess was also running a bootleg seminar in modern European political history without compensation or institutional permission. Several members of Dewey's graduating class had purposely stayed at Amherst to take it, including John Bates Clark. Dewey also participated, but in a unique way. He made the literature of the subjects Burgess was teaching "accessible" to Burgess's students "by his new method of subject cataloging." Burgess later recalled that Dewey "worked with me most successfully in that branch of my instruction during the years I taught at Amherst."³⁰

It is not unlikely that Dewey used Burgess's and his students' reactions to the headings of sub-classes and subdivisions on which he was working to refine the 300 and 900 classes. It is also possible that his experiences with Burgess's seminar gave Dewey the idea to change "Government" in Harris's scheme to "Sociology" in his own. His decision to use "Sociology" as a major heading under which to list subclasses like Statistics, Political Science, Political Economy, and Law was unusual given the chronology of the discipline's development. Although few American colleges offered sociology courses and none supported sociology as a separate department in 1875, contemporary thinkers often used the terms "sociology" and "social sciences" synonymously. Considering what Dewey stuck in the 300s, it appears he agreed with them, and he probably got the idea from Burgess and/or his seminar students. On 1 and 8 June (one day before and one day after Seelye had been in the library to help him), Dewey noted in his diary that Burgess had just "finisht with work" Dewey had asked him to do on two classes within the decimal scheme.³¹

Thus it was that the Amherst College tradition, curriculum, faculty, and assigned texts provided Dewey with much of the information he needed to structure a hierarchy, and name divisions and sections within the major classes he had appropriated from Harris's scheme. Dewey gives no indication in his diary that he ever questioned or disagreed with advice given him by Seelye, Burgess, or any other Amherst faculty member. He once even complimented Seelye for "giving me quite a lift." He seems to have accepted the world they presented to him as an absolute. Because, like most other students at classical colleges in 1875, he was still at a stage in his life where he was expected to "fill his mind" with the best his instructors had to offer, he regarded them as the experts on the structure of knowledge, and he had confidence that whatever they told him was the best advice he could get; his only response was to fit that advice into the decimal scheme in order to create the simplest, most efficient classification for all American libraries. As a result, the hierarchical arrangement of headings Dewey ultimately devised for the decimal scheme had the effect of framing and cementing a worldview and knowledge structure taught on the tiny Amherst College campus between 1870 and 1875 into what became the world's most widely used library classification.

In mid-1875 Dewey began sending drafts of the Decimal Classification to librarians like Jacob Schwartz; W. T. Harris; Walter Stanley Biscoe of the Taunton, Massachusetts Public Library; Frederic Beecher Perkins of the Boston Public Library; William Isaac Fletcher of the Watkinson Library in Hartford, Connecticut; John Fiske and Ezra Abbott of Harvard; Emeline Hutchins of the Sturgis, Massachusetts Public Library; and Annie Godfrey of the Wellesley College Library. He also sent proofs to Amherst faculty like Edward Hitchcock and Edward P. Crowell, and to graduate student John Bates Clark. By the end of November 1875, he had completed his scheme and was ready to have it printed.³²

In mid-March 1876 Dewey wrote the Register of Copyrights in Washington, D.C., asking permission to copyright "a little work just passing thru" the press entitled "A classification & subject index with direction for their use." He enclosed one dollar to cover the cost of copyright. By this time Dewey had seen initial page-proofs for the scheme and on 27 March wrote the "explanations for my classification and index" which ultimately went into the introduction.³³ By this time the scheme had also evolved to its more familiar ten classes with an ill-defined initial section (000) for bibliographies, periodicals, and encyclopedias that preceded Philosophy (100), Theology (200), Sociology (300), Philology (400), Natural Sciences (500), Useful Arts (600), Fine Arts (700), Literature (800), and History (900). Each class accommodated divisions and sections, sub-sections and sub-subsections (some classifiers would argue *ad infinitum*)

by utilizing both of the remaining digits, then expanding the capacity of the system even more by adding numbers after a decimal following the third digit. In 1876 it was hard for Dewey to believe library collections would ever outgrow the Decimal Classification's ability to organize them bibliographically.

So what were the origins of the Decimal Classification? Evidence presented in this essay suggests that on 7 March 1873 Melvil Dewey was introduced to the concept of a decimal classification when he read Nathaniel Shurtleff's 1856 pamphlet. Two months later he had decided to superimpose a system of decimals on a classification scheme William Torrey Harris had refined for the St. Louis Public School Library, that was based upon a structure of knowledge articulated by Sir Francis Bacon but inverted by German philosopher G. W. F. Hegel. That was about as much as Dewey appropriated from classification history. The rest he appropriated from Amherst and the Anglo-Saxon world in which it operated. Dewey chose decimals because he was convinced the metric system offered simplicity, efficiency, and an unlimited potential for expansion; he chose Harris's hierarchy because it fit the Anglo-Saxon world into which he was born, a world further refined by the Amherst tradition, curriculum, and faculty. Between May 1873 and November 1875 Dewey filled out the divisions and sections of Harris's hierarchy by appropriating from Amherst textbooks and faculty. The Hegelianism evident in Hickok's works and Seelye's and Burgess's teaching probably reinforced and expanded the Hegelianism already inherent in Harris's hierarchy, and all fit very neatly into the doctrine of Anglo-Saxonism then forming in late-nineteenth-century America.

For the most part, historians of library classification have looked for the origins of the Dewey Decimal Classification only in classification systems that preceded it. What they have not realized was that beyond Harris's basic structure, most of the scheme emerged from a worldview defined on the Amherst College campus between 1870 and 1875. And because Dewey regarded this as a "natural" world—an integral part of the discourse of his culture—he felt no more need to cite his sources than contemporary scholars feel the need to verify "general knowledge."³⁴

At the last session of the conference at which the American Library Association was organized in Philadelphia in October 1876, Lloyd P. Smith, librarian of the Library Company of Philadelphia, asked Dewey to elaborate on the system of cataloguing and classification he had recently "devised" at Amherst. Smith described it as "the most valuable idea" he would "carry away from this conference." Dewey acknowledged the compliment Smith paid to his "Amherst method," but referred conference attendees instead to his article in a just-published government

report on public libraries in the United States. By referring to the Decimal Classification as the “Amherst method,” however, he characterized it more than he knew.³⁵

Melvil Dewey certainly did not invent his decimal scheme out of whole cloth, but he did craft its pattern by selecting the threads from which its essential fabric was woven. For the most part these threads came from two locations—the St. Louis Public School Library classification system and Amherst College. Dewey’s genius was in weaving them into a simple system most libraries could easily adopt. His good fortune was that he presented it at the beginning of a public library movement in the United States that significantly benefited from a common classification scheme, and since in the twentieth century the American public library became a model other countries emulated, worldwide adoption of Dewey’s scheme followed easily. His legacy, however, is mixed. On the one hand the scheme has over the decades saved millions of dollars and countless hours of time. Because it has become so widely accepted throughout the world it has permitted one person to classify one title for the hundreds of thousands of libraries using the decimal system. In addition, the system itself has become familiar to millions of people who can feel relatively confident that their knowledge of the system used in one library will serve them well in another. On the other hand the doctrine of Anglo-Saxonism Dewey wove so tightly into his system has over the years resisted the introduction of new threads with more culturally pluralistic origins.

Because it is probably fair to say that at sometime in their lives a substantial majority of Americans living in the twentieth century have used the DDC, it is probably also fair to say that for the past century the scheme itself has quietly—almost invisibly—occupied an influential position as one of the forces sustaining the discursive formations of a Eurocentric patriarchy. The extent to which the DDC has as a result disadvantaged other discourses has yet to be analyzed. It is hoped that some scholar with a deep understanding of twentieth-century American intellectual, social, and cultural history will write this much-needed book sometime in the near future.

Notes

1. Melvil Dewey, “Decimal Classification Beginnings,” *Library Journal* 45 (15 February 1920): 151–4.

2. Quotations taken from Kurt F. Leidecker, “The Debt of Melvil Dewey to William Torrey Harris,” *Library Quarterly* 15 (April 1945): 135. See also Kurt F. Leidecker, *Yankee Teacher: The Life of William Torrey Harris* (New York: Philosophical Library, 1946), 399. Without naming Harris, Dewey acknowledged his indebtedness to “the inverted Baconian arrangement of the St. Louis Library” in

Melvil Dewey, *A Classification and Subject Index, for Cataloging and Arranging the Books and Pamphlets of a Library* (Amherst, Mass., 1876), 10.

3. Eugene E. Graziano, "The Philosophy of Hegel as Basis for the Dewey Decimal Classification Schedule" (Master's thesis, University of Oklahoma, 1955); Eugene E. Graziano, "Hegel's Philosophy as Basis for the Dewey Classification Schedule," *Libri* 9, no. 1 (1959): 45–52.

4. John Maass, "Who Invented Dewey's Classification?" *Wilson Library Bulletin* 47 (December 1972): 335–42. See also John Maass, *The Glorious Enterprise: The Centennial Exhibition of 1876* (Victoria, Canada: University of Victoria, 1973). For a more recent, more historically grounded discussion of the system of classification used at the 1876 Centennial, see Bruno Giberti, "The Classified Landscape: Consumption, Commodity Order, and the 1876 Centennial Exhibition in Philadelphia" (Ph.D. diss., University of California, Berkeley, 1994).

5. See Leo LaMontagne, *American Library Classification, with Special Reference to the Library of Congress* (Hamden, Conn.: Shoe String Press, 1961); W. C. Berwick Sayers, *A Manual of Classification for Librarians and Bibliographers* (3d ed., rev. London: A. Deutsch, 1959); and Henry Evelyn Bliss, *The Organization of Knowledge in Libraries, and the Subject Approach to Books* (2d ed., rev. New York: H. W. Wilson, 1939).

6. John Phillip Comaromi, *The Eighteen Editions of the Dewey Decimal Classification* (Albany, N.Y.: Forest Press, 1976), chs. 1 and 2. Quotes taken from pages 7, 14, 20, 29, and 32. See also Natale Battezzati, *Saggio di Catalogo; col Sistema da Lui Proposto ed Adottato dal Congresso Tipografico-Librario Tenutosi in Napoli nel mese de Settembre 1871* (Milano, 1872); and Enzo Bottasso, *La Biblioteca Pubblica: Esperienze e Problemi* (Torino: Associazione Piemontese dei Bibliotecari, 1973), 177–207.

7. Charles C. Jewett, *A Plan for Stereotyping by Separate Titles, and for Forming a General Stereotyped Catalogue of Public Libraries in the United States*. (Washington, D.C.: Government Printing Office, 1851).

8. See "Extracts from MD's comments on books he had read," Box 27, Melvil Dewey Papers, Rare Books and Manuscripts Reading Room, Columbia University, New York, New York (hereafter cited as Dewey MSS). The original diaries from which this quote is taken were written in Lindsley's Tachigraphy, a late-nineteenth-century form of shorthand Dewey used throughout his life. Words quoted here and throughout this article taken from these diaries come from transcriptions made by Robert Hood, Dewey's personal secretary during the last two years of his life (1929–1931) for Grosvenor Dawe, Dewey's authorized biographer. (See Dawe's *Melvil Dewey, Seer: Doer: Inspirer, 1851–1931* [Lake Placid, N.Y., 1932].) I have changed Hood's transcriptions, which were made in the radical form of simplified spelling Dewey used late in life, into conventional spelling for clarity and ease of reading.

9. Dewey Diary, 2 February 1873, Box 32A, Dewey MSS.

10. Reading notebook entry, 22 February 1873, Box 99, Dewey MSS. Leidecker had not read this entry for his *Library Quarterly* article.

11. Nathaniel B. Shurtleff, *A Decimal System for the Arrangement and Administration of Libraries* (Boston: Privately Printed, 1856). Dewey had been interested in metric since he was sixteen. He wrote a composition on it in 1867 and a visit to Boston's Sealer of Weights and Measures in 1871 "confirmed my dislike for our present complicated system." See Dewey Diary, 12 October 1867; and 11 April 1871, Box 35A, Dewey MSS. Probably because Maass was not aware of Dewey's early interest in metric, he assumes Dewey picked up that interest from exposure to Blake's classification. See Maass, "Who Invented Dewey's Classification?," 341. Surprisingly, none of the historians exploring the DDC's origins make mention

of Shurtleff in connection with Dewey's system. This suggests they did not look at Shurtleff, and most were probably unaware of the pamphlet's existence. Dewey does not acknowledge Shurtleff in the preface of his original edition, but he does mention Shurtleff in an 1879 *Library Journal* article (see *Library Journal* 4 [February 1879]: 61). Comaromi quotes this article but fails to pursue the clue (see Comaromi, *Eighteen Editions*, 630). Ainsworth Rand Spofford, who was Librarian of Congress when Dewey copyrighted his scheme in 1876, notes: "What is known as the decimal or Dewey system of classification was originally suggested by Mr. N. B. Shurtleff." See Ainsworth Rand Spofford, *A Book for All Readers* (New York: G. P. Putnam's Sons, 1900), 269.

12. Reading notebook entries, 7 March 1873, 29 April 1873, and 19 June 1873, Box 99, Dewey MSS. Although his notebooks and diaries do not reflect it, Dewey may also have read the publications of the U.S. Centennial Commission sent to Amherst in early 1873, one of which was a forty-two-page pamphlet outlining a system of decimal classification and notation upon which Maass bases his interpretation. That Dewey commented on Shurtleff twice but never mentions the Centennial Commission report suggests that the latter had no impact on him even if he had read it, and thus, Maass is probably wrong.

13. Reading notebook entries, 11 March 1873 and 22 March 1873, Box 99; Dewey Diary, 1 April 1873, and Schwartz to Dewey, 20 February 1873, Box 35A, Dewey MSS.

14. The original document is in an envelope marked "Special Historical Material About Melvil Dewey," unmarked box, Lake Placid Education Foundation Records, Lake Placid, New York.

15. Dewey to Harris, 9 May 1873, as found in Leidecker, "The Debt of Melvil Dewey to William Torrey Harris," 139. See also Harris to Dewey, 13 May 1873, Box 13, Dewey MSS. Apparently, Leidecker did not see this second letter.

16. Comaromi discusses the influence of Hegel on Harris's scheme on pages 25–7. For a fuller account of Bacon's influence on American classification schemes, see LaMontagne, *American Library Classification*, 156–62.

17. Dewey Reading Notebook, 19 June 1873, Box 99; Dewey Diary, 21 April 1874, Box 35A, Dewey MSS.

18. Standard histories of Amherst (from which this composite picture is drawn) include Claude Moore Feuss, *Amherst: The Story of a New England College* (Boston: Little, Brown & Co., 1935); William S. Tyler, *A History of Amherst College During the Administration of Its First Five Presidents* (New York: Frederick H. Hitchcock, 1895); Stanley King, "The Consecrated Eminence:" *The Story of the Campus Buildings of Amherst College* (Amherst, Mass.: Amherst College, 1951); and Thomas Le Duc, *Piety and Intellect at Amherst College, 1865–1912* (New York: Arno Press, 1969).

19. For good discussions of the nineteenth-century evolution of the concept of objectivity as defined by a male WASP culture, see Mary O. Furner, *Advocacy and Objectivity: A Crisis in the Professionalization of American Social Science, 1865–1905* (Lexington: University of Kentucky Press, 1975); Thomas L. Haskell, *The Emergence of Professional Social Science: The American Social Science Association and the Nineteenth Century Crisis of Authority* (Urbana: University of Illinois Press, 1977); Thomas L. Haskell, ed., *The Authority of Experts: Studies in History and Theory* (Bloomington: Indiana University Press, 1984); and especially Dorothy Ross, *The Origins of American Social Science* (Cambridge, Mass.: Harvard University Press, 1991), chs. 2–4.

20. Amherst College, *Catalogue of the Officers and Students of Amherst College for the Academic Year, 1873–4* (Amherst, Mass.: Amherst College, 1873). See also Cornelius H. Patton and Walter Taylor Field, *Eight O'Clock Chapel: A Study of New England College Life in the Eighties* (Boston: Houghton Mifflin, 1927).

21. See Le Duc, *Piety and Intellect*, 26, 72, and 98.
22. Feuss, *Amherst*, 159; Patton and Field, *Eight O'Clock Chapel*, 59, 150. See also J. Edmund Welch, *Edward Hitchcock, M.D.: Founder of Physical Education in the College Curriculum* (Greenville, N.C.: East Carolina College, 1966), 162; and Edward Hitchcock, *An Abstract of Lectures on Health to the Freshmen of Amherst College, 1880* (Amherst, Mass.: Press of C. A. Bangs & Co., 1880).
23. Denison Olmsted, *An Introduction to Natural Philosophy: Designed as a Textbook for the Use of Students in College*, 2nd ed. rev., by E. S. Snell (New York: Collins & Brother, 1870).
24. For Snell's reference to "Physics," see *ibid.*, iii. Comaromi uses Alexander Bain's *Logic: Deductive and Inductive* (New York: D. Appleton, 1889) to explain this sequencing. There is no evidence Dewey ever read earlier editions of Bain.
25. Le Duc, *Piety and Intellect*, 42. See also Ernest Sutherland Bates, "Hickok, Laurens Persius," *Dictionary of American Biography, Vol. V* (New York: Charles Scribner's Sons, 1932), 5-6.
26. Laurens P. Hickok, *Empirical Psychology; or, The Human Mind as Given in Consciousness* (New York: Iveson, Blakeman, Taylor & Co., 1854); *A System of Moral Science* (New York: Iveson, Phinney & Co., 1853). Seelye's editions of Hickok's works came out in 1880.
27. Burgess, *Reminiscences*, 53. For a more detailed description of the influence Seelye's Hegelianism had on his students, see Ralph Gordon Hoxie, "John W. Burgess, American Scholar, Book 1: The Founding of the Faculty of Political Science" (Ph.D. diss., Columbia University, 1950), 51-4.
28. Dewey Diary, 5 February 1875, 2 and 7 June 1875, Box 35A, Dewey MSS. See also Laurens P. Hickok, *Empirical Psychology; or, The Science of Mind From Experience. Revised with the Co-operation of Julius P. Seelye* (Boston: Ginn, Heath, & Co., 1882), 34-8; and Comaromi, *Eighteen Editions*, 39.
29. See Hoxie, "John W. Burgess," 7-16, 51-60, and 147-9.
30. Burgess, *Reminiscences*, 52-7.
31. Dewey Diary, 1 and 8 June 1875, Box 35A, Dewey MSS. See also Le Duc, *Piety and Intellect*, 54; Hoxie, "John W. Burgess," 52-3; and Ross, *The Origins of American Social Science*, 85-97.
32. Dewey Diary, 5 February 1875, 22 May 1875, 1 June 1875, 2 June 1875, 7 June 1875, 8 June 1875, and 29 November 1875, Box 35A, Dewey MSS. See also Comaromi, *Eighteen Editions*, ch. 2; Burgess, *Reminiscences*, 218; and *Amherst Student 7* (19 September 1874): 11-17. See also Dewey to Biscoe, 19 January 1875, James I. Wyer Autograph Collection, American Library Association Archives, University of Illinois Archives, Urbana, Illinois; Frederick Beecher Perkins to Dewey, 19 June 1874, Box 33; and E. E. Hale to Dewey, 19 July 1874, Box 31A, Dewey MSS.
33. Dewey to Register of Copyrights, 22 March 1876, Forest Press Archives, Albany, N.Y.; Dewey Diary, 22 March 1876, Box 35A, Dewey MSS.
34. In the last ten years a substantial literature has grown up around the concept of "discourse." Much of this literature emanates from the writings of Michel Foucault, author of *The Archaeology of Knowledge* (New York: Harper & Row, 1976); *The History of Sexuality* (New York: Pantheon Books, 1978); *Madness and Civilization: A History of Insanity in the Age of Reason* (New York: Vintage Books, 1973); and *The Order of Things: An Archaeology of the Human Sciences* (New York: Pantheon Books, 1971). See also Hubert L. Dreyfus, *Michel Foucault: Beyond Structuralism and Hermeneutics* (Chicago: University of Chicago Press, 1983). While library scholars have yet to apply this concept to a study of classification systems, a hint of the possibility is evident from Pierre Bourdieu's *Distinction: A Social Critique of the Judgement of Taste* (New York: Routledge, 1984). In discussing categories of cultural taste, he argues: "Taste classifies, and it classifies the

classifier" (6). If extended to librarianship, that line of logic would suggest that librarians who classify (or who accept with little question the fixed classification systems like Dewey and LC) are themselves classified by classification systems. For a glimpse of the potential for applying the concept of discursive formations to the study of librarianship, see Gary P. Radford, "Positivism, Foucault, and the Fantasia of the Library: Conceptions of Knowledge and the Modern Library Experience," *Library Quarterly* 62 (October 1992): 408–24; Bernd Frohmann, "The Power of Images: A Discourse Analysis of the Cognitive Viewpoint," *Journal of Documentation*, 48, no. 4 (1992): 365–8; and John M. Budd and Douglas Raber, "Discourse Analysis: Method and Application in the Study of Information," *Information Processing & Management* 32, no. 2 (1996): 217–36.

35. *American Library Journal* 1 (30 November 1876): 141. See also Melvil Dewey, "A Decimal Classification and Subject Index," in Bureau of Education. United States Department of Interior, *Public Libraries in the United States of America. Their History, Condition, and Management: Special Report, Part 1* (Washington, D.C.: Government Printing Office, 1876), 625–46.