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## COHERENCE IN GENERAL EDUCATION: A HISTORICAL LOOK

**Kenneth Boning**

In a 2004 article that appeared in *New Directions in Higher Education*, D. Kent Johnson and James Ratcliff refer to coherence as general education reform's "unfinished agenda" (p. 92). Other evidence from the literature substantiates this claim; achieving coherence has been a recurring theme in the discussion of general education reform. But what is coherence, and why is it important? Today, a coherent general education program can be defined as one where students are able to make connections and integrate their knowledge (Association of American Colleges [AAC], Project on Strong Foundations for General Education, 1994; Boyer, 1987; Study Group on the Conditions of Excellence in American Higher Education, National Institute of Education, 1984; van Doren, 1943), rather than one that merely provides them with isolated pieces of information (Gaff, 1991). These connections should occur within disciplines, among disciplines, to real life and the world, and to majors and careers (Boyer, 1987; Stark & Lattuca, 1997).

In 1939, Henry Wriston, president of Brown University, wrote, "If one looks at educational problems without historical perspective, he is likely to start with the assumption that the current social scene is 'new'" (p. 297). Indeed, coherence is a major focus of general education reform today; however, it has been either a focal point or an underlying issue in general education for nearly two centuries. This article discusses the history of the significance of coherence in general education, a history that can best be described as a swinging pendulum alternating between periods of integration and periods of fragmentation.

## **The Pendulum Begins to Swing**

From the time Harvard was founded in 1636 until the mid-1800s, the typical college student was a young man from a privileged background who underwent preparation in a religious setting for a future career as a leader in either the church, law, or medicine (Boyer & Levine, 1981; Rudolph, 1977; Sheridan, 1998). The unified curriculum was coherent as there was no division between general and specialized education (Rudolph, 1977). Students experienced a true core consisting of courses in Greek, Latin, mathematics, and moral truths (Boyer & Levine, 1981; Fuhrmann, 1997).

Several attempts to diversify the curriculum were made after 1820. The founding of the University of Virginia in 1824 as a secular institution by Thomas Jefferson offered students some choice in their course of study (Levine, 1978; Miller, 1988; Rudolph, 1962/1990; Sheridan, 1998). In 1827, Amherst instituted a “scientific” program for students who did not wish to enter law, medicine, or ministry. It failed after only two years, in part, because it was so radically different from the traditional curriculum it was unable to attract enough students (Rudolph, 1962/1990; Thomas, 1962). The University of the City of New York, founded in 1832, also established dual curricula, one based on the classics and the other more practical in nature. The latter met a fate similar to its counterpart at Amherst, however (Rudolph, 1962/1990).

The concept of “general education” as an entity distinguished from specialized study began to appear at about this time as well. At Bowdoin College, general education was described as the segment of undergraduate education that prepared students for their professions (Packard, 1829). The progression of college curricula was slowed by the Yale Report of 1828, which condemned efforts to provide an education that ignored the classics in favor of one that was more practical and individualized (Miller, 1988). The report was so influential that curricular changes at most institutions were delayed for decades (Sheridan, 1998).

A number of changes in society by the mid-19th century hastened educational reform. These developments included a growing need for occupational training because of the Industrial Revolution and a focus on the “common man” during the presidency of Andrew

Jackson (Boyer & Levine, 1981). Francis Wayland at Brown and Henry Tappan at Michigan were two of the leaders seeking change. Wayland favored shifting the curriculum to one that was more practical, or utilitarian, to meet the changing needs of society (Miller, 1988; Sheridan, 1998). He supported giving students freedom of choice through electives that they might personalize their course of study (Rudolph, 1962/1990). Tappan also advocated a new direction for higher education, although his vision differed from Wayland's (Rudolph, 1962/1990). Tappan was among the nearly 10,000 Americans who studied in Germany between 1815 and 1914, many of whom returned to the United States with a mission to introduce the German emphasis on scholarly research into American institutions (Sheridan, 1998). Tappan's efforts were rejected, however, and a more practical curriculum was instituted at Michigan (Rudolph, 1962/1990). His ideas for a new purpose in higher education would nonetheless eventually become mainstream.

Although their motives differed, both Wayland and Tappan encouraged a transformation from curricula based on the classics to one more focused on the individual. Two events that occurred during the 1860s accelerated progress toward this goal. The first was the Morrill Land-Grant Act of 1862, which provided funds in each state for

at least one college where the leading object shall be . . . to teach such branches of learning as are related to agriculture and the mechanic arts . . . in order to promote the liberal and practical education of the industrial classes. (reprinted in Levine, 1978, pp. 557–558)

The author of the bill, Justin Smith Morrill, believed that the federal government should promote education for farmers and mechanics (i.e., craftsmen and engineers) in order to enhance agricultural productivity (Cross, 1999). The newly founded institutions did not compete with classical colleges because they were intended to address different needs (Cross, 1999) by offering a practical, vocational education (Miller, 1988; Thomas, 1962). Utilitarians viewed colleges and universities as positive forces for change in society because the institutions represented opportunities for social and economic advancement (Fuhrmann,

1997; Miller, 1988). The land-grant institutions created under the 1862 act and the second Morrill Act of 1890 also increased heterogeneity within the student population. Prior to the 1860s, the vast majority of college students were wealthy white males. As a result of the two acts, women, African Americans, the working class, and immigrants all had a drastically increased presence in higher education (Cross, 1999).

The second major event of the 1860s that changed American higher education was the inauguration of Charles Eliot as president of Harvard in 1869 and his subsequent devotion to the elective system. George Ticknor, on faculty at Harvard and Eliot's uncle, had been one of the first Americans educated in Germany (Rudolph, 1962/1990). He had discussed the use of electives with Jefferson during the 1810s, and subsequently Jefferson incorporated electives into his curriculum at Virginia (Miller, 1988). However, Eliot's use of electives had a far greater impact than Jefferson's or even Wayland's (Rudolph, 1962/1990). Eliot believed that "the individual traits of different minds have not been sufficiently attended to. . . . The young man of nineteen or twenty ought to know what he likes best and is most fit for" (1898, p. 12). Eliot preferred the individualization that the elective system offered: "The elective system fosters scholarship because it gives free play to natural preferences and inborn aptitudes, makes possible enthusiasm for a chosen work" (1898, p. 14). Other institutions followed Harvard's lead by adopting Eliot's vision.

The elective system affected higher education in a number of ways. Students gained the ability to tailor their studies to their own needs. Along with the Morrill acts, the elective system promoted upward mobility in America (Rudolph, 1962/1990; Sheridan, 1998). The elective system also allowed the research movement to flourish as faculty gained the freedom to pursue their own interests (Miller, 1988). As a result, specialization became prominent, departments became more powerful on campus (Gaff, 1983), and the process of scholarship became recognized as a professional activity (Sheridan, 1998). Both the utilitarian and research movements gained supporters at the expense of culturists, or those who maintained support for a classical education (Miller, 1988; Thomas, 1962).

By the end of the 1800s, the primary purpose of American higher education shifted from preparing future leaders to the advancement of knowledge (Gaff, 1983). Specialization dominated, as faculty

spent their time on research interests within their departments, even if it meant distancing themselves from the institutional community (Miller, 1988). The number of prescribed courses shrunk on most campuses (Boyer & Levine, 1981) as interest in general education faded (Chance, 1980; Thomas, 1962). Ironically, *Wissenschaft*, the German philosophy on which the research movement was based, actually emphasized both research *and* teaching (Miller, 1988). The German ideal sought to connect knowledge and learning to the real world, not for it to develop separate from it (Sheridan, 1998). Faculty in American institutions, in contrast, forsook teaching to devote greater effort to research (Miller, 1988).

Despite Eliot's original intentions, the elective system became nothing more than a means for students to take whatever classes they wanted on their way to a degree, no matter how fragmented and incoherent their experiences were (Meiklejohn, 1922; Miller, 1988). Their choices were so varied that students earning the same degree at the same institution may not have taken any of the same courses (Thomas, 1962). A lack of standards, coupled with an increasingly diverse population in terms of background, led to additional problems. Even students who were deficient in academic preparation had the same freedom of choice as other students. The less prepared students were not required to take courses that addressed their deficiencies in order to earn their degrees (Thomas, 1962). Overall, the emphasis on individualized education fragmented the academic community (Boyer & Levine, 1981) and brought dubiousness to the value of a baccalaureate degree (Cohen, 1988).

### **The Pendulum Moves Back Toward Coherence**

In the early 1900s, "the curriculum of the typical American college or university would have been nearly unrecognizable to the authors of the Yale Report of 1828," as the classical liberal arts had all but been abandoned in favor of specialization and professional education (Sheridan, 1998, p. 33). Some educational leaders began to address the negative effects of the elective system, however. In an address in 1893, Woodrow Wilson, president of Princeton, criticized the separation of general and specialized education:

Knowledge is trustworthy only when it is balanced and complete. . . . No more serious mistake was ever made than the divorce of technical or practical education from theoretical, as if principles could be made use of and applied without being understood. (1893/1970, p. 291)

William Rainey Harper designed a curriculum at the University of Chicago that restricted the number of electives during the first two years (Levine, 2000). Yale restructured its undergraduate curriculum into an experience that consisted of both specialization and distribution in an attempt to increase coherence. Other institutions slowly began to follow this lead (Miller, 1988).

These were mere antecedents of greater reform efforts that were to come. The first of three periods of reform during the past 100 years began to unfold during the 1910s. The second occurred in the mid-1940s, and the current period originated in the late 1970s (Boyer & Levine, 1981; Magner, 1994). The main impetus of each period has been to assure that all students, regardless of major or intended career, receive a broad general education rooted in the liberal arts and sciences (AAC, Project on Strong Foundations for General Education, 1994).

Although praised for many of his accomplishments during his tenure at Harvard, Eliot was also blamed for the problems of incoherent undergraduate curricula that developed because of his fascination with the elective system (Miller, 1988; Resnick & Gouldern, 1987). Abbot Lawrence Lowell, Eliot's successor at Harvard, proclaimed the end of free electives during his 1909 inaugural address:

It is absurd to suppose that a list of electives alone will furnish him with the required knowledge, or that the sense of responsibility which always sits lightly upon the undergraduate will inspire him with wisdom in arranging his course of study. (1934, p. 4)

Lowell's ideas to increase coherence for students took the shape of a distribution structure made up of four subject fields: the biological sciences, the physical sciences, the social sciences, and the humanities (Thomas, 1962). Other institutions likewise contracted their curricula

in order to create experiences that were connected and, thus, bring order to a period of “intellectual anarchy” (Levine, 2000).

Although many reformers in the early 1900s were frustrated with the circumstances resulting from the elective system, most of them did not simply wish to abolish electives and return to the “one size fits all” curriculum of a century before (Thomas, 1962). The development of alternative modes of thought, such as psychology, influenced the belief that approaches other than the classical curriculum were just as effective in terms of intellectual development (Sheridan, 1998). Among the new approaches were interdisciplinary courses and senior seminars. Columbia College introduced an interdisciplinary course, “Contemporary Civilization,” that focused on methods, applications, and citizenship. The course contrasted with traditional general education courses based on disciplinary content (Farnham, 1996; Miller, 1988). The University of Chicago also developed interdisciplinary courses, including “The Nature of the World of Man,” “The Meaning and Value of the Arts,” and “Man and Society” (Levine, 2000). Although interdisciplinary courses represented a new way to deliver general education, they typically did not replace other courses. Instead, they were added to existing lists from which students could choose (Thomas, 1962). Among the other endeavors toward more purposeful curricula were Reed College’s senior seminars, which provided opportunities for students to integrate their skills into a senior thesis and exam (Levine, 2000). Antioch also designed a program that provided integration, one that connected students’ learning with work experience (Levine, 2000).

Alexander Meiklejohn and Robert Hutchins, two other critics of Eliot’s elective system, led contrasting movements toward reform during the 1920s and 1930s. Meiklejohn (1922), president of Amherst, blamed Eliot’s background as a chemist for preventing Eliot from realizing the connections that exist, especially among the humanities. Meiklejohn did not want general education to be used as preparation for specialized study. Instead, he supported an integrated approach to general education that relied on classical ideas and themes to facilitate problem-solving skills. His ideas were embodied initially in interdisciplinary, thematic general education survey courses (Carnegie Foundation for the Advancement of Teaching,



1977) and later in a thematic experimental college he developed at the University of Wisconsin (Gaff, 1980; Miller, 1988). Hutchins, president of the University of Chicago, had an alternate view of how best to integrate general education. He criticized vocationalism in higher education as well as the pursuit of research at the expense of undergraduate education. He believed that a common, coherent general education that focused on great books would develop students' intellectual abilities regardless of whether they went on to pursue specialized study (Faust, 1950/1992; Hutchins, 1936/1967). The great books curriculum was first adopted at St. John's in 1937 (Levine, 1978).

The "quest for unity" in general education during the 1930s focused on "those relationships that bind parts together to form a whole" (Bigelow & MacLean, 1939, p. 379). These efforts resulted in the adoption of more structured systems of distribution across higher education (Thomas, 1962), with most institutions structuring their distribution subject areas into the humanities, sciences, social sciences, mathematics, and fine arts (Cohen, 1988). The period of interest in general education reform ended during the Great Depression as many students demanded an education that would improve their employment opportunities rather than emphasize the classics (Boyer & Levine, 1981). Ironically, professionals in specialties such as engineering, law, and business who became unemployed during the Great Depression lamented that they did not have a broad enough education to allow them to adapt to other types of jobs (McGrath & Others, 1939).

Interest in general education reform experienced a renaissance only a few years later with the release of the report *General Education in a Free Society* in 1945 (Boyer & Levine, 1981). The report, commonly referred to as the Redbook, promoted a shared, coherent, and purposeful general education for every student (Bowen, 2004) that would help protect American democracy from totalitarian systems of government like those that led to World War II (Ratcliff, 1997). The Redbook also emphasized that both general and specialized education were vital in a free society (Sheridan, 1998) and that general education should constitute one-third of the undergraduate degree (Stevens, 2001). Furthermore, the Redbook spoke of the need for a "unifying purpose and idea" because the current state of education helped "to

destroy the common ground of training and outlook on which any society depends” (Harvard University, Committee on the Objectives of a General Education in a Free Society, 1945, p. 43). The report contained a proposal to increase coherence and decrease fragmentation by instituting a core curriculum for Harvard. Although this suggestion was not approved at Harvard (Boyer & Levine, 1981; Rudolph, 1977), the report helped to shape undergraduate degree programs at many other institutions in subsequent years (Ratcliff, 1997).

### **The Pendulum Swings Again: Fragmentation Returns**

The first two quarters of the 20th century saw a number of reform efforts designed to produce more purposeful, coherent curricula. However, many of these reforms were short-lived because of reasons that were either institutional in nature or student related. Reforms supported by administrators often lacked the necessary grassroots support from faculty in departments to sustain them (Rudolph, 1977). In addition, the courses that made up general education, as well as the primary purposes of general education, were often the subject of debate among faculty (Stark & Lattuca, 1997).

Major student-related changes during the 1960s and 1970s affected general education and its coherence. Two events that instigated these changes were the demise of *in loco parentis*, marked by the 1961 court case *Dixon v. Alabama* (Resnick & Gouldern, 1987), and the Higher Education Act of 1965. As students began to demand more rights following *Dixon*, they argued that changes made to bring more structure to general education restricted their individualism. Furthermore, students began to question the rationale for including certain courses in distribution requirements (Gaff, 1980; Magner, 1996), as they considered a number of courses irrelevant to contemporary society and students. Increased diversity among college students (Boyer & Levine, 1981; Carnegie Foundation for the Advancement of Teaching, 1977; Stark & Lattuca, 1997) was a result of the passage of the Higher Education Act of 1965 and its subsequent reauthorization in 1972. These actions were designed to make college more accessible for students from lower socioeconomic backgrounds (Cunningham &

Parker, 1999). Many of the “new” students objected to traditional general education because it failed to incorporate the perspectives of women and minorities, it was not considered useful to large numbers of students who desired a strictly vocational education, and it was not considered pertinent to the growing adult education movement (Gaff, 1983).

In response to these objections, nearly three-fourths of colleges and universities reduced their general education requirements between 1967 and 1974 while increasing student freedom in choosing courses. The number of electives students were allowed toward total degree requirements nearly doubled from 27% to 52% (Blackburn, Armstrong, Conrad, Didham, & McKune, 1976). Research institutions created many courses taken only by specific majors, and other institutions tailored programs to adult learners who enrolled in only one course at a time. These changes returned a degree of incoherence (Ratcliff, 2000) and a lack of commonality to undergraduate education (Gaff, 1983). Faculty typically did not object to these trends because they gained additional freedom to focus on their own interests, as had their predecessors under Eliot’s elective system. They were able to teach courses they wanted to teach, rather than being forced to teach general education courses (Magner, 1996).

### **Another Swing of the Pendulum: New Reforms for Coherence**

The relaxation of central authority on college campuses resulted in weakened institutional control over programs as well as student achievement and behavior (Resnick & Gouldern, 1987). In the late 1970s and early 1980s, new appeals were made for reconstructing general education (Gaff, 1980), signifying the start of the third major era of interest in general education reform since 1900, one that continues to the present day (Magner, 1994).

The current reform movement is generally considered to have originated with the 1977 release of *Missions of the College Curriculum* by the Carnegie Foundation for the Advancement of Teaching (Gaff, 1980; Mariana, Varjavelu, & Young, 2004). This report described general education as a “disaster area” (Carnegie Foundation for the Advancement of Teaching, 1977, p. 11) and blamed a lack of common

student experiences that resulted in the devaluation of the baccalaureate degree. Soon after the Carnegie report was released, another Harvard University report suggested a redesign in its general education program (AAC, Project on Strong Foundations for General Education, 1994). Even though other institutions followed Harvard's lead again (Chance, 1980) and reestablished general education requirements that had been reduced during the previous 20 years (Gaff, 1983), the typical undergraduate experience continued to be fragmented for years to follow (Gardiner, 1998; Zemsky, 1989).

Many other reports on the quality of higher education overall, and general education specifically, appeared during the next two decades (Stark & Lattuca, 1997). These reports criticized ineffective programs that produced low academic quality (Gaff, 1980), evidenced by declining test scores (Stevens, 2001) and college graduates who were poorly qualified and poorly educated (Resnick & Gouldern, 1987). A prevailing sentiment was that students were too focused on career preparation (Bloom, 1987); they knew too little about science, math, history, and culture; and they lacked the abilities to think and communicate effectively (Ratcliff, 1997). Other stimuli for reform were also external to the academy, including complaints from businesses regarding the mediocre skill development of graduates, decreased federal funding, accountability, and comparisons with educational achievement in Japan (Stark & Lattuca, 1997).

As was the case during previous movements, many authors during the 1980s and 1990s sought to increase coherence and commonality in student experiences through general education reform (Bennett, 1984; Boyer, 1987; Ratcliff, 1997; Zingg, 1987). Reformers believed that addressing coherence in general education would enhance the quality of the overall undergraduate experience (Ratcliff, 1997). The critics said that students were no longer able to see the applicability of their learning because fragmentation permeated higher education (Boyer, 1987). According to Bloom (1987),

These great universities—which can split the atom, find cures for the most terrible diseases, conduct surveys of whole populations and produce massive dictionaries of lost languages—cannot generate a modest program of general education for undergraduate students. This is a parable for our times. (p. 340)

Some reformers urged institutions to provide greater integration of students' experiences through the use of true core programs, among disciplines, and to aid careers by emphasizing both breadth and depth (Stark & Lattuca, 1997). Supporters of liberal education were challenged to devise new ways to help students find coherence (Carbone & Herrick, 1993), although opinions differed on which actions would be most effective (Stark & Lattuca, 1997).

The reports and their proposals, while increasing interest in general education, also contained a number of limitations. Some authors proposed increasing coherence through the adoption of curricula based on Hutchins's great books idea or other approaches of the past, such as one based on Western values (Bennett, 1984; Cheney, 1989). However, most institutions dismissed these models as irrelevant to contemporary society (Stark & Lattuca, 1997). An immense number of changes in higher education had occurred since the strictly classical curriculum was in widespread use decades earlier. Among these were the amount of knowledge that existed, the influence of government in higher education (Resnick & Gouldern, 1987), and the increasingly diverse mix of students attending higher education (Johnson, 2002). In general, the homogeneous culture that had provided the foundation for the classical curriculum no longer existed (Stark & Lattuca, 1997).

Although a great deal of conversation regarding general education occurred during the 1980s, reforms were initiated much more slowly (Eaton, 1991; Ratcliff, 1997). This dialogue did not necessarily lead to consensus on individual campuses, and, as a result, students still were able to choose from a number of courses to satisfy distribution requirements (Schwartz, 2004). Many institutions created new multicultural and multidisciplinary departments and programs, instead of incorporating these perspectives into existing departments (Tetreault & Rhodes, 2004). Nevertheless, colleges and universities followed a number of paths to reforming general education by the early 1990s, such as raising standards, restricting options, increasing requirements, promoting active learning, extending general education through all four years, and creating learning communities (Gaff, 1991; Magner, 1994; Stark & Lattuca, 1997). It is worth noting, however, that many of these changes were not the result of a careful process of program review, assessment, or strategic planning (Ratcliff, 2004).

Furthermore, reports issued during the 1980s generally focused on reforming program structures rather than other avenues to higher-quality education such as implementing new teaching methods (AAC, Task Group on General Education, 1988; Fuhrmann, 1997) or enhancing student experiences (Gamson, 1989) by meeting their needs for active learning and involvement (Gaff, 1999). By the late 1990s, however, reports promoted the issues of skill development in general education, shared experiences for freshmen and capstone courses for seniors, and student involvement in research (Boyer Commission on Educating Undergraduates in the Research University, 1998).

By 2000, the renewed interest in the curriculum had resulted in undergraduate education becoming a higher priority for colleges and universities (Ratcliff, 2004). Greater emphasis was placed on the development of the personal, intellectual, and social abilities of students (Ratcliff, 1997). In addition, coherence was improved through the alteration of general education programs by modifying distribution requirements (Gaff & Wasescha, 1991) and improving connections between general education and majors (Stark & Lattuca, 1997). Moreover, institutions began to develop and articulate their philosophies of general education to their students (Bowen, 2004).

## Conclusion

Although coherence has been an enduring issue in general education, interest in maintaining curricular coherence has fluctuated over the past 200 years. Despite current interest in curricular reform, coherence continues to be regarded as an unfinished agenda.

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