
The contemporary academy has undergone enormous changes: demographic changes have altered the economic, racial, gender, and age constitution of student and professoriate bodies; philosophical changes have diversified the way the academy views issues of knowledge, ideology, power; and pedagogical changes have challenged long-held beliefs about and long-practiced methods of classroom instruction. As post-secondary teachers, we no longer practice our craft in an environment of certainty and conformity. Globally, advances in such areas of scientific knowledge as quantum physics and chaos, have pressured prevailing thinking as profoundly as have the articulation of post-structuralist, postmodern, and social constructivist theories of epistemology and power. Locally, calls were heard advocating the integration of collaborative learning opportunities into the didactic classroom, the overt discussion of and instruction in critical thinking and problem solving skills, as well as writing across the curriculum. All of these have combined to stir the waters of instruction in ways that have radically altered many classrooms.

The debates surrounding all of these topics have been intense, although it has not, nor should it be expected to create the illusion of unanimity that once existed. As a result, academics must deal with, rather than attempt to ignore, the resulting ambiguities in the way they think and teach. Such a task is rarely easy, especially in an environment which attempts to simultaneously house such diametrically opposite epistemologies as empiricism and social construction, and pedagogies such as unilateral lecturing and collaborative learning classroom. When individuals attempt to posit possible paths through this morass, they inevitably receive mixed reviews, especially when the proposed course challenges individuals’ fundamental assumptions about their disciplines and selves. Kenneth Bruffee’s latest exploration linking collaborative learning and social constructivist epistemology is a case in point.

Ken Bruffee begins Collaborative Learning by recounting how he and a group of colleagues met the challenges facing them when the City University of New York began open admissions in 1970. They gathered regularly to talk about the novel situations they faced and to try to analyze, synthesize, and articulate the discoveries they made about their students,
selves, classrooms, and institutions. This description of collaboration in action is a fitting opening for a book that examines (and, at times, idealizes) this collaborative social/pedagogical interaction. Our response represents the collaborative effort of three members of a faculty book discussion group who, for a semester, steered their on-going discussions of teaching by the chart Bruffee lays down in this text.

In part, irony fueled the decision to cast this response in the collaborative mode combining the perspectives of an historian, a human physiologist, and a writing center director. We found it humorous and the source of much speculation that Bruffee wrote a single-authored book about collaboration as an articulation of the nonfoundational social construction of knowledge. If we use our conversations about the text and the process of writing this response to represent collaborative endeavors, then collaborative learning runs the gamut, producing everything from fractious and heated debate to mutual incomprehension and disciplinary-based sneering to peels of laughter, intricate word play, and, most important, exploration and learning.

Kenneth Bruffee's work represents a significant and nuanced synthesis of the growing body of literature about teaching and learning, two subjects—one, teaching, conceived usually in rather pragmatic terms; the other, learning, usually conceived in more theoretical terms—that frame the book’s structure. In a seductively written first chapter, Bruffee deals with two key issues: the premise of socially constructed nonfoundational knowledge and the role of faculty authority in the classroom. Indeed, Bruffee spins a brilliant theoretical web; however, it rests squarely on the premise that knowledge is nonfoundational and socially constructed. For us, this premise provided a fundamental and important paradox at the center of our discussions: we simultaneously accepted and rejected it, considered and criticized it, tinkered with and trashed it, and began the cycle again.

A consequence of the nonfoundational paradigm Bruffee posits is the role faculty authority plays in the learning process. He argues, "that the nature and source of authority of college and university teachers, not curriculum or students' intellectual and emotional development, is the central issue in college and university education in our time" (8). Bruffee calls upon faculty to find ways to renegotiate the issue of classroom control. Bad decisions can result in comforts for teachers or comforts for students, but comfort is usually bought at the expense of learning. We found little to argue with Bruffee on this front. Echoing Richard Rorty, Bruffee contends that learning involves
more than rote memorization of content: it involves “shifting social allegiances,” learning new languages of discourse, and ultimately joining new learning communities. If one accepts the premise that education means going beyond simply doing what one knows, then education is a continuous process of learning as well as a process of acculturation to the evolving thought patterns and behavior of an academic discipline. Perhaps Albert Einstein put this best: “Education is what is left over after we have forgotten everything we have learned in school.”

The fact that there are so many discussions about what ails the academy leads one to believe that Bruffee is on to something in proposing a new vision of collaborative learning in college classrooms. Having read the book, a well-respected senior colleague remarked to our reading group, “I’ve been teaching for over twenty years and anything has got to be better than staring at our student’s blank expressions as we lecture to them.” As educators we often hear that the current system involving the traditional learning paradigm produces students who are authority dependent, passive, irresponsible, overly competitive, and suspicious of their peers. Many prospective employers want graduates who exhibit none of the aforementioned traits. Yet current students have no other paradigm and the shifts of a paradigm, as Thomas Kuhn and Richard Rorty have argued, is serious business indeed.

The philosophical framework around which Bruffee constructs his argument rests on the distinction he makes between “foundational” and “nonfoundational” knowledge and here is where our group encountered considerable dissonance. In articulating this distinction, Bruffee writes:

The cognitive understanding of knowledge is *foundational* because it assumes that there is a ground, a base, an idea, a theory, a structure, a framework—a foundation—beneath or behind knowledge on which all knowledge is built. . . . A *nonfoundational* understanding of knowledge . . . assumes that knowledge has no foundations, internal or external. People construct what we call knowledge out of the various languages available to us. . . . Knowledge is therefore not universal or absolute. It is local and historically changing. We construct it and reconstruct it, time after time, and build it up in layers. (222)

As our arguments over this central issue progressed, we found that we sometimes reverted to the cant of the discipline in which we were raised to
argue for our favored sides in this debate. In the deepest sense we think most scientists could agree with Bruffee’s position that our interpretations of data are cognitive constructs agreed upon among communities of scholars. Where the greatest divergence occurs is in his dismissal of all knowledge, all data, as “something people construct by talking together and reaching agreement” (7).

It may well be true that, “we construct and maintain knowledge not by examining the world but by negotiating with one another in communities of knowledgeable peers. . . . [L]earning occurs among persons, not between persons and things” (9). Change of disciplinary paradigms and the acceptance of new explanatory models are not, however, a simple matter of taking a poll of all those present at a professional meeting and publishing the result. Conversation with peers alone does not shift explanatory paradigms; rather, conversation with peers occurs in the context of analysis of the common evidence or argument that is persuasive for members of a particular disciplinary community.

Epistemologically the two of us from humanities backgrounds, whose academic training and acculturation were profoundly influenced by post-structuralist thought, tended to side with Bruffee; our partner, trained within an academic community defined by a commitment to scientific method, remains unconvinced that one can totally accept Bruffee’s argument as presented in this volume without turning one’s back on the empirical roots of the natural sciences. Because the technology developed out of scientific understandings of the world continues to exhibit practical utility, Bruffee stands an almost certain dismissal by many scientists and science educators as long as he maintains that scientific thought is not at least about “things,” even if it does not directly occur “between people and things.” One can argue quite persuasively that Bruffee’s position becomes reductive, oversimplifying very complex, epistemologically dependent processes of mind and method. The net result is to leave Bruffee looking to many observers like a fish out of their theoretical waters.

Admittedly, more of “the constructive, collaborative process by which scientists build models of the natural world” (144) needs to be included in science instruction; however, it should be included because it is necessary to understand the model itself, not because any collaborative skills involved are more important than the model or the models’ underlying assumptions. A well-formulated model is conceptually complex and needs to be understood before it can be meaningfully or usefully recalled. When they are removed
from the explanatory context that spawned them, models make little or no sense. One of the calls in current science education is to make instruction more grounded in actual observation and interaction with the real world, not less so (Benchmarks for Science Literacy, American Association for the Advancement of Science, 1993; Oxford U. Press, New York). It is the tight situationality of scientific models that distinguishes scientific thought from other branches of human endeavor, and leads people to assume that all of science is “fact” and “known,” rather than an ongoing elaboration of explanatory models. To remove this context and teach students the process with little or no regard for the content, the very foundational assumptions that underlie the models, is to teach something other than the discipline.

The current work place is changing faster than ever and demands that our graduates be able to keep on learning to successfully adapt to these rapid changes. Otherwise, they will be left behind. In an uncertain economic climate with shrinking higher education budgets held to closer scrutiny than ever before the academy cannot afford to conduct business as usual and expect to survive unscathed in a highly competitive global market.

We suggest starting with the first chapter, which raises the key issues that influence the development of Bruffee’s model. Additionally, we recommend that one read this book with others. It is our experience that one’s epistemological assumptions affect how one responds to Bruffee’s call for change. The strength of Bruffee’s book lies in the vision it proposes to meet such future challenges. The broad interdisciplinary research, the timely issues presented, and the elegant writing make this book a particularly opportune starting point for faculty reading/discussion groups focusing on teaching and learning. As such, the reader is more free to explore themes and issues, for which the book’s index is set up as a convenient road map. For those who are happy to ponder the epistemology and philosophy of education, this book promises to provide material to stimulate a rewarding discussion.

Eric Hobson
Margaret Weck
Robert Zebroski
Saint Louis College of Pharmacy
Saint Louis, Missouri