

Misconstructing Constructivism

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BY LYNN CHRENKA

TEACHERS who use a constructivist approach to learning are *not* invisible, as Lawrence Baines and Gregory Stanley suggest in their December article, "'We Want to See the Teacher': Constructivism and the Rage Against Expertise." On the contrary, such teachers are an integral part of the learning process. Informed by Piaget, Vygotsky, Bruner, and others, these teachers, in fact, combine their understanding of how students learn with their own expert knowledge of a particular discipline in order to construct a framework for instruction. Within this framework, learning is an active process that is student-centered in the sense that, *with the teacher's help*, learners select and transform information, construct hypotheses, and make decisions.

Teachers encourage students to respond to texts and to one another, they guide students' attention, and they lend what Vygotsky calls a "structuring consciousness" that enables students to think in increasingly complex ways about a multiplicity of possible perspectives. Constructivist teachers do not disappear, nor do they abdicate their responsibilities to "teach," as Baines and Stanley argue. Learning in constructivist classrooms depends on teacher-scaffolded strategies on the order of Socratic dialogue that would collapse without a teacher. What, indeed, would Phaedrus have learned without Socrates? I suspect that the outcomes reported in the unpublished paper that Baines and Stanley cite about a high school English teacher's constructivist "experiment" with Shakespeare resulted from a misunderstanding of the constructivist approach. But I cannot be certain because the authors

do not describe the role the teacher took in the constructivist group. Perhaps the teacher really did disappear in this case.

With regard to the student evaluation of the history course that they also cite, I would argue that students are conditioned to the lecture/discussion method. Of course, an approach that engages students actively and encourages them to think for themselves (to select and transform information and to construct and test their own hypotheses) would not be preferred, at least initially, to one that allows them to sit back and passively absorb information as if just one correct interpretation existed. Students often adopt a "wait-it-out" attitude, investing minimal attention in the learning process. Why bother? Because of his or her expertise, the "sage" surely knows and will surely tell them the "right answers," which they will dutifully reproduce on tests. Moreover, the sage who has developed that expertise through years of reading and study has nothing to learn from students.

Some teachers, however, actually believe that there is more than one way to play Chopin, more than one reading of *Macbeth*, and more than one possible synthesis of the points of law in a particular case. Moreover, anyone who has ever visited an art museum knows that the mix of colors for "an autumn sky" is seldom precise. As for physics, after completing his formal education, Einstein noted, "I found the consideration of any scientific problem distasteful to me for an entire year. . . . It is nothing short of a miracle that the modern methods of instruction have not entirely strangled the holy curiosity of inquiry; for this delicate little plant, aside from stimulation, stands mainly in need of freedom; without this it goes to wrack and ruin without fail."

What concerns me most about their remarks, however, is that Baines and Stan-

ley do not cite directly *any* constructivist theorists; they cite only those who have written *about* such theorists. Moreover, to say that there is "no body of knowledge associated with it" is to misunderstand constructivism. First, there is a considerable body of knowledge associated with constructivism as an epistemology (Bishop George Berkeley, Giambattista Vico, Immanuel Kant, and others). Second, as I mentioned earlier, constructivism as a theory of learning depends on a teacher's expertise in his or her field without which the teacher would be unable to develop the scaffolding strategies necessary for learners to begin to construct their own meanings. If I were not an "expert" in English language and literature, for example, I would no more be able to develop a scaffold for my students' reading of Shakespeare than to give a lecture or lead a discussion. A teacher's competence in his or her field is crucial no matter what the approach to learning chosen.

Perhaps an example from Jerome Bruner's *Going Beyond the Information Given* will demonstrate:

The concept of prime numbers appears to be more readily grasped when the child, through construction, discovers that certain handfuls of beans cannot be laid out in completed rows and columns. Such quantities have either to be laid out single file or in an incomplete row-column design in which there is always one extra or too few to fill the pattern. These patterns, the child learns, happen to be called prime. It is easy for the child to go from this step to the recognition that a multiple table, so called, is a record sheet of quantities in completed multiple rows and columns. Here is factoring, multiplication, and primes in a construction that can be visualized.¹

This "visualized" learning has proved to be much more effective than rote memorization, and the teacher without "expert" knowledge of such concepts would be unable to design frameworks capable of enabling learners to construct their own understanding.

In *The Ascent of Man*, Jacob Bronowski suggested that "certainty ends inquiry." To fulfill the cultural desire for certainty, the conventional practices of schooling of-

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ten discourage playful curiosity and experimentation and insist on the existence of the one right answer. Those who espouse such conventional practices are impatient with techniques that may lead to unconventional thinking, preferring common knowledge to uncommon knowledge and often denying the existence of fully valid alternative perspectives.

Traditional thinking would have people believe that certain theories and beliefs match an independent reality that exists "out there." Constructivism suggests, instead, that for every theory, there is the possibility of multiple alternatives to it. Thus constructivism recognizes the possibility of constructing the world in many different ways. For example, my husband and I have taken our sailboat out of Old Mission Harbor many times. Each time, we have managed to maneuver the boat successfully to the open water of Lake Michigan, avoiding shallows, rocks, and other boats. Yet our success tells us only that the route we chose fit the constraints of the harbor at that time, not that we had discovered the "one true route." It requires no great leap of imagination to see that numerous, different routes exist that would probably be just as successful.

Constructivism suggests that people find the world as they do because they have made it so. Accepting the idea that their view of the world is only a *fit* for a particular moment in space and time makes it difficult to condemn the views of others who see the world differently. Those who espouse constructivism can claim no more "truth" for their experience (in the sense of its correspondence to some mythical reality) than, for example, those who believed that the Earth was flat. For them, it was. People believed that, if they sailed too near the edge, their ship would fall into oblivion, so they stayed in their own little harbor until someone tested the limits of that construction of reality and broke it down. Ernst von Glasersfeld noted that, just as the environment places limits on living organisms and eliminates all variants that in some way transgress the limits within which they are viable, so the experiential world acts as a testing ground for ideas. "Regularities, rules of thumb, and theories either prove reliable or they don't, and in the history of ideas, 'natural selection' . . . simply lets go under whatever does not pass the test."²

Constructivism suggests that teachers

need to help students become active inquirers who, when they fail to find the meaning they seek, do not give up hope, but conclude that they have not looked in the right place. It is the teacher's job to help students see that there are an infinite number of "right" places. Teachers need to coach students in the process of construction to help them become aware, deliberate, and responsible participants in the seeming chaos and disorder of the postmodern world and to help them develop a comfort with *uncertainty* in order to thrive in an environment where the only certainty is change. What teachers must help their students understand is that knowledge of the conventional wisdom is not the end of their seeking; rather, it is the process of divergence, of noticing critical differences, that

leads to unconventional wisdom and uncommon sense.

In freeing themselves from the "comfort" of conventional wisdom, students must also realize that they become answerable for the choices they make in constructing the world as they do. When things go wrong, they cannot escape complicity and place the blame elsewhere. But they may find comfort in knowing, along with T. S. Eliot in *Little Gidding*, that "the end of all [their] exploring will be to arrive where [they] started and know the place for the first time."

1. Jerome Bruner, *Going Beyond the Information Given* (New York: Norton, 1973), p. 428.

2. Ernst von Glasersfeld, "An Introduction to Radical Constructivism" in Paul Watzlawick, ed., *The Invented Reality* (New York: Norton, 1984), p. 7. **K**

At Odds Constructivism and the Role of the Teacher

We Still Want To See the Teacher

A master teacher can have a profound influence on the life of a child, Mr. Baines and Mr. Stanley respond. This is no time to tell the teacher to sit down and shut up.

BY LAWRENCE A. BAINES AND GREGORY STANLEY

HAD Lynn Chrenka presented a body of research that clearly demonstrated the superiority of constructivism as a teaching philosophy, we would have been more impressed. Instead, she tries to reconstruct history so that a litany of comments from dead geniuses can be claimed to support constructivism. Unfortunately, a solid body of research support does not

exist, nor has it ever existed.

As it is practiced in institutions of higher education, constructivism has become a kind of intolerant religious order, replete with an accompanying doctrine, a mandate to evangelize and convert (apparently, even the dead), and an interminable list of commandments. Of the many sins one can commit against constructivism, none is more egregious than for the teacher to act as expert. Although a teacher might possess rare breadth and depth of knowledge, a charismatic personality, a masterly command of language, and a brilliance in leading discussions, constructivists have decreed, "Thou shalt not lecture." In many schools of education, the prejudice against lecturing as a method of instruction has reached as-

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