

Humanistic Buddhism and Learning

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ABSTRACT

This paper reviews major findings in the theory of learning from the Western cognitive psychology literature. Four general principles of learning are found: learning is affected by prior knowledge; learning is a social process; learning is situational; and learning involves the use of strategy. It is then argued that Buddhism, because of its long tradition of emphasizing education and teaching, has been applying and has perfected these four principles in its quest for enlightenment. The paper then describes major Buddhist practices which are related to the four principles of learning. Finally, the paper gives some examples of applying Buddhist educational practices to classrooms by contemporary educators.

Introduction

Although traditional Buddhist education centered on the monasteries [Pollak, 1983], many of the Buddhist practices followed modern education theories and principles. Buddha, as a teacher, advocated lifelong learning in transforming one's life through the understanding of the Four Noble Truths and the practice of the Eight Noble Paths [Johnson, 2002]. In fact, Buddhism with its emphasis on the "learning perspective," has become one of the main influences on the Asian education system [Shinil, 1996]. A learning perspective characterizes education as the learners' intentional activity to attain new knowledge, ways of thinking, and skills. This is in contrast with the "schooling perspective" in the West that portrays instruction-centered education in which the instructor is responsible for the success or failure of education. The learning perspective could become an alternative framework for Western education if we assume that human beings are learning organism, that the purpose of living is developed within the whole process of learners' lives, that teaching exists for the sake of learning, and that teachers and learners are co-learners.

Learning Theories and Principles

The field of learning is a sub-area within psychology which itself grew out of philosophy in the late 1800s. The earliest theories of learning that attracted considerable interest were the stimulus-response theories (S-R). They were attempts of early pioneers in twentieth-century psychology to objectify the study of learning. Both stimuli and responses are observable and hence can be studied scientifically. This early perspective gave rise to behaviorism. The methodology for behaviorists is primarily scientific experiment in which stimulus variables are manipulated and response variables are measured. Many of them used animals as subjects. They believe that learning follows the same laws regardless of species.

Arising in tandem with S-R behavior theory was a second major division in learning theory: cognitivism. It arose out of negative reaction to behaviorism. Cognitive theorists are typically more interested in the study of perception, problem solving, and understanding than in the study of behavior per se. They believe the

behaviorists took an approach too simplistic to provide adequate explanations of complex human behavior. In their opinions, purpose or intention should be included in the analysis. Processes such as perception, thought, and consciousness, should be focused to infer laws of mental activities. Many of the cognitive theorists are willing to postulate complex explanatory concepts that are not always clearly and precisely linked to objective stimulus and response variables.

The cognitive perspective camp was further divided into three approaches [Hamilton and Ghatala, 1994]. The **cognitive-developmental theory** deals with the development of human intelligence. The basic position is that as children attempt to adapt to their environment, they develop increasing effective reasoning processes that in turn allow them to construct more adequate representations of the world. The emphasis is on understanding how individuals at different ages build or construct their view of reality. **Information processing theory** explains human cognition and problem solving by employing the computer as the basic metaphor for the human mind, replacing the telephone switchboard metaphor implicit in S-R theory. A computer takes input and transforms it into a qualitatively different internal representation. It performs operations on this representation and finally converts it into some output. This approach of learning emphasizes the central phenomena of attention, perception, and memory. **Social learning theory** asserts that much of human learning takes place through social interactions. Humans can and do acquire much of their knowledge and behavior by observing others. As we observe other's performance, we create a cognitive representation that enables us to subsequently perform the new behavior.

In the last decade, the constructivist thesis has taken on a significant role in the theorizations and practices of the international education community [Larochelle and Bednarz, 1998]. Constructivism is an umbrella term covering theorizations which are primarily centered on the cognitive subject, the situated subject (or social actor), or the locus of knowledge. It implies that knowledge is always knowledge that a person constructs. It breaks radically with the foundations of empirico-realism, which claims to encode reality in terms of substances and phenomena that are independent of the observers involved. It challenges age-old beliefs which maintain that facts speak for themselves, that knowledge is the reflection of ontological reality, and that language objectively refers to this reality. Adams [2000] summarized the framework of constructivism in the following statements: (1) Learners bring unique prior knowledge and beliefs to a learning situation; (2) Knowledge is constructed uniquely and individually, in multiple ways, through a variety of authentic tools, resources, experiences and contexts; (3) Learning is both an active and a reflective process; (4) Learning is developmental. We make sense of our world by assimilating, accommodating, or rejecting new information; (5) Social interaction introduces multiple perspectives on learning; and (6) Learning is internally controlled and mediated by the learner.

Centering on the thesis of constructivism, new terms, such as authentic activity, apprenticeship learning, conceptual change, distributed knowledge, and socially shared cognition, abound in the literature. In an attempt to guide teachers to

navigate through this plethora of new terms or theories of learning, the Association for Supervision and Curriculum Development [ASCD, 1992] identifies four principles of learning that are universal and fundamental to these theories or concepts:

1. New learning is shaped by the learner's prior knowledge.
2. Much learning occurs through social interaction.
3. Learning is closely tied to particular situations.
4. Successful learning involves the use of numerous strategies.

Knowledge is a complex network of ideas, facts, principles, actions and scenes; therefore, prior knowledge is more than a building block of information. It can facilitate, inhibit, or transform a learning task. What kinds and amounts of knowledge one has before encountering a given topic in a discipline affects how one construes meaning. They are sources of both conceptions and misconceptions. New information is always filtered by prior conceptions and related information. The impact of prior knowledge is not a matter of "readiness"; it is an issue of depth, interconnectedness, and access. Learning outcomes are determined jointly by what was known before and by the contents of the instruction. With adults, the biggest hindrance to learning is not usually lack of prior knowledge, but incorrect or partial prior knowledge. People are generally reluctant to give up or change their prior knowledge and beliefs. Thus, learning can often be difficult and emotionally costly, and sometimes involves loss and grieving [Leinhardt, 1992].

Knowledge is, to a large extent, both individual and community property. Knowledge is a cultural artifact of human beings; we produce it, share it, and transform it as individuals and as groups. Knowledge is also distributed among members of groups, and this distributed knowledge is greater than the knowledge possessed by any single member. Recognizing this community nature of knowledge, attention should be given to both a student's individual and shared knowledge. Public and shared definitions of problems, tasks, and solutions should be an integral part of the learning process. Students are not a collection of individuals; instead, they are a small community whose members are learning together, learning from one another. Classrooms are places students can explain to each other and help each other explain. The verbal rehearsal makes the implicit knowledge the learners may have explicit. Teachers and students together track the progress of the group's understanding; accept or refute proposed interpretation of others; propose interpretations of their own reasoning; and both increase the demand of the task and reduce its difficulty by sharing it.

Knowledge gained in one situation can be adapted and applied to a different but similar situation. Psychologists found that knowledge can be transferred, but a lot less than we might think. In their term, learning is "situated." Knowledge is created when a person undergoes a certain situation and is crafted, adapted to the very situation one is in. Each situation is in some sense a new start; the more different it is from past situations, the more new work there is going to be done. The classroom environment should mimic real life as much as possible so that what is learned in a classroom can be easily transferred to real life.

Knowledge can be learned more successfully if learners employ certain strategies, psychologists found. There are some fundamentals of learning that cut right across all subject matters. They have to do with the importance of elaboration, the role of imagery, and the power of anchoring understanding in examples. There are *plain* thinking skills and *fancy* thinking skills. Everyone uses *plain* thinking skills (such as spontaneous classifying, spontaneous comparing, remembering and so on) a lot. *Fancy* skills involve systematic strategies to compare and contrast, or a push to look at the evidence and then look for the counter-evidence and try to integrate it into a decision or a deliberate effort to generalize and make analogies. Plain thinking skills are, of course, important. But fancy thinking skills are even more important to learning. When one faces a difficult concept (e.g., a new idea, or a philosophy, or a conceptual system), if one can bring to bear that systematic comparison, that search for evidence, that effort to reach for an analogy or a metaphor that may clarify something, one is going to be a much more powerful learner because one is building a much richer, elaborate web of associations and connections around the topic.

Learning Principles Embodies in Buddhism

The objective of Buddhist practice is to reach enlightenment—to see reality as it is without slightest delusion. Buddha taught his students how to reach this goal in various “dharma” talks. All these teachings can be viewed as systematic instructions for Buddhist students. The whole system of Buddhist practice is nothing but a system of instructions and pedagogy designed to achieve this goal. However, since enlightenment is such a tall task, Buddha had a very challenging job. In retrospect, he employed many pedagogical designs that are consistent with modern learning theories and principles.

In his first teaching on the Four Noble Truths, Buddha evidently took a cognitive approach. He wanted his students to take a hard look at the truths of suffering, the cause of it, the cessation of it, and the path to it. In his teaching on the Twelve Dependent Originations, he wasted no time by pointing out the role of prior knowledge in the creation and cessation of suffering. He suggested that all human suffering and pains are caused by misconception or wrong views of reality (*ignorance* in Buddhist terminology). He emphasized the importance of correcting this prior knowledge in his teaching on the Eight Noble Paths. To have the correct views is the first step and also the last step toward enlightenment. Among all the greatest teachers in the history of humankind, this author does not believe there is anyone else who has recognized the importance of prior knowledge more than he did. This emphasis on prior knowledge was further expanded later by the Yogacara School of Buddhism. Adopting a constructivist approach, the Yogacara School hypothesized an “*alaya*” consciousness that can store all prior knowledge from previous lives, which in turn serves as the underlying basis for all phenomena experienced in this and future lives. Eradicating all the wrong views and delusions from this “*alaya*” consciousness is the only way to reach enlightenment, according to the Yogacara practitioners.

Because each individual comes with a different set of prior knowledge and learning preconditions, Buddhist teaching emphasizes tailoring a pedagogical approach to each individual’s pre-learning capacity and knowledge base. Buddha was alleged to have devised 84,000 approaches to teach dharma to sentient beings. The

myriad of teaching approaches reflects Buddhist emphasis on the role of prior knowledge in each person's learning of Buddhism. This great tradition of tailoring instruction to individuals and recognizing the role of prior knowledge in inhibiting enlightenment was further exemplified later by the Zen (or Ch'an) School of Buddhism. In the Zen's tradition, many unique methods, such as *koan* or *hua tou*, were designed to break the impact or bondage of prior knowledge to the student's practice. The Zen masters were also specially known for their individualistic style of instruction. They can teach two students in totally opposite ways, depending on each student's stage of learning and his or her disposition.

Recognizing the importance of social learning, Buddha created Sangha or the practice community. In fact, Sangha played such an important role in Buddhist practice that it is included with Buddha and Dharma as the *Triple Gems*. The Triple Gems are where all Buddhists take refuge. This institutional arrangement highlights the prominence of social interaction in Buddhist education. In a Sangha community, many rules or precepts were established to ensure proper interactions and shared learning. For example, whenever disagreement among the practitioners arose, a meeting would be called to hear the statements from the two sides and to solicit opinions from other members of the Sangha. The issue would be heatedly debated and finally a group decision would be reached. The opinion from each individual member was respected, but the merit of the opinion was the only thing that carried weight. Later in the Mahayana tradition, the concept of a learning community was further expanded to include the whole universe. According to the Mahayana Buddhism, a bodhisattva (a practitioner aspired to reach enlightenment) has to deliver all the sentient beings before he or she can finally reach enlightenment. Only through a very long process (three asankhyeyas) of interacting and helping all other sentient beings, can a bodhisattava eradicate all his or her ignorance and gain supreme wisdom to reach enlightenment.

When Buddha taught his students, he was fully aware of the limited transferability of knowledge and the principle that learning is related to particular situations. In Buddhist sutras, it is not uncommon to find incidences where Buddha took advantage of a special circumstance and transformed it into a golden opportunity of dharma teaching. In fact, the main doctrines of Buddhism can be summarized in a few general principles. But it takes volumes and volumes of sutras to elaborate and apply these general principles to individual situations in daily life. Vivid examples and detailed illustrations of how dharma was related to daily practice and life can be found easily in the early sutras. Later in the Mahayana tradition, again this concept of situated learning was greatly emphasized. According to the Mahayana approach, wisdom can be divided into three types: the universal wisdom, the wisdom related to particular situations, and the supreme wisdom of enlightenment. The universal wisdom is the knowledge about the noumena. The wisdom related to specific situations is the insight about all phenomena. The supreme wisdom of enlightenment is the ultimate knowledge about both noumena and all phenomena. To obtain the supreme wisdom, a practitioner has to go through the learning of all the specific knowledge related to all the particular situations. Such great emphasis on the principle of situated learning is rarely found in any other knowledge system of mankind.

From the beginning, Buddhist teaching was characterized by its emphasis on learning strategies. It incorporates the behavioral, cognitive and constructivist perspective into a seamless integrated approach. It emphasizes both *plain* thinking skills and *fancy* thinking skills. Its deliberately structured programs ensure the practitioners eventually reach the final goal of enlightenment. In the Eight Noble Paths, which was the first suggested strategy for Buddhist learning and practice, the correct view and thinking represent the cognitive approach; the correct behavior, correct speech, correct livelihood, and correct endeavor represent the behavioral approach; and correct mindfulness and correct concentration relate to the perspective of constructivists. Later in the Mahayana Buddhism, the Eight Noble Paths were further summarized into the *Three Learning* of precepts, meditation, and wisdom. But the integrated approach was preserved and amplified. For example, in the Tibetan Buddhism, there is a clear emphasis on all three approaches to learning, represented by the employment of mudra, mantra, and meditation, in their practice.

With respect to the use of *fancy* thinking skills, Buddhist teaching is particularly noteworthy. Buddha was well known for his use of similes, metaphors and analogies in his teaching. There are two types of meditation in Buddhism: the calm-abiding meditation and the analytical medication. In the analytical meditation, either vipasyana or some Mahayana contemplation techniques, a practitioner employs many high-level analytical thinking skills. The most prominent example is the contemplation on emptiness as illustrated by the Nagarjuna's *Mulamadhyamakarikā* (the *Treatise on Middle Way*). Very few analyses were found that can be more elaborate and rigorous than this treatise. Another fancy thinking skill that was often practiced by Buddhists, but frequently ignored by Western scientists, is relational analysis. By emphasizing the relational links between an individual and the whole, between the negative and the positive, between identity and difference, between realism and nihilism, the Buddhist thinking method has the potential to expand human knowledge to a new horizon [Sardar, 2000].

One thing that is very unique and yet to be discovered by modern psychologists is Buddhist emphasis on calm-abiding meditation. This is a simple truth that has been ignored. A mind is not capable of performing fancy thinking until it is calm and concentrated. Buddhists, particularly Zen Buddhists, spend much time preparing their minds to become fertile soil ready for the seeds of enlightenment. They know that, unless the mind is trained to be lucid and alert, higher level of thinking strategies can not be developed effectively. Calm-abiding meditation potentially can be the most significant contribution of Buddhism to modern learning theory.

Applying Buddhist Practices to Classrooms

Recognizing that Buddhist practices embody a tremendous collection of learning theories and principles that bear an amazing resemblance to their counterparts in modern cognitive psychology, some educators have experimented with the application of Buddhist practices to student learning in today's classrooms.

Lewitt [1986] compared the teaching method of traditional Zen Buddhism to those of process-based English composition and found many similarities. It is noted that the process of Zen teaching (meditation, physical work, personal interviews, and group lectures) focused on process, not product, as in process writing. Both

instructions emphasize what not to say and when not to say it and use correction only for those who are ready. It was also suggested that both Zen and writing are practiced not only for the self, but for all. Meditation and physical work are compared to prewriting and writing. The writing conferences are compared to the Zen conference, requiring preparation and careful listening to oneself. The group lecture, rarely used in Zen or in process writing, is found in both disciplines to be reserved for occasions requiring the teacher to address a common problem.

Majors [1989] described how Zen techniques can be applied to enhance the student's ability to speak publicly. He recognized that Zen methods are a way to infuse entirely different attitudes in a student toward education, a specific subject matter, the instructor, and the self-concept of the student. He found that Zen techniques can be used to teach communication to provide a unique, and often revolutionary, starting place for learning. The techniques include: (1) begin the class with meditation; (2) create in the classroom an atmosphere of calm; (3) give student personal attention; (4) enforce discipline; (5) internalize standards of performance; (6) teach by demonstration; and (7) teach with ritual, humor, and story.

Gelade [1997] compared the difference between the approach of the (traditional) teaching schools and the Zen school. He found that the Zen approach embodies all four of the learning principles discussed in the previous section. By training in a group, it allows students to maintain "form," thus increasing the strength and intensity of learning. It was analogized to geese flying in formation. They can fly 71 percent further than when flying alone; i.e., group training makes possible what would otherwise be impossible. By confronting our passions and delusions head on, rather than running off and trying to escape, it allows students to examine their prior misconceptions and correct them. By emphasizing doing rather than reading and thinking, it allows students to learn from particular situations and to apply a higher level of learning strategies to real life tasks.

Brown [1999] described a unique teacher-training program employing Buddhist practices at Naropa Institute. In the program, future teachers learned to bring the fundamentals of Buddhist practice—observation, meditation, contemplation, and compassion—into the classroom. So-called contemplative teaching begins by rediscovering one's senses and by knowing and experiencing oneself directly. The objective is not to reach nirvana, but to realize the sacredness of every learning task. Through this process, the learning outcome was reported to be greatly enhanced.

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