Review

Strands of constructivism in the Bhagavad-Gita

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Learning is a process where an individual constructs his or her own meaning through cognitive processes. Conceptual development is a continuous process of deepening and enriching connections and acquiring new layers of meaning. Learners must not only have ownership of the learning, problem solving process, but of the problem itself. Constructivist approach highlights the active role of the learner. The engagement of learners, through relevant activities, can further facilitate in the construction of mental images of relationships. Knowledge must be experienced, and experience should be reflected upon to internalize that knowledge. Through direct experience, one can acquire essential knowledge. The Gita says, *ekam sankhyam cha yogam cha, yah pashyati sa pashyati* (5.5), 'One who sees *sankhyam* (jnana) and *yoga* (karma) as one, truly sees *Jnana vignana trptaatma*…6.8), 'satisfied with knowledge and wisdom'. Knowledge is constructed by an individual through his/her own experience. For lack of experience, one knows, yet does not know (Radhakrishnan, 2003). In this paper, the author has made an attempt to bring out the glimpses of the process of knowledge construction, mutual learning and the facilitation of knowledge construction in the Gita. An attempt is made in going beyond constructivism as reflected in the Gita.

Key words: Knowledge construction & its facilitation, Meaningful learning, experiential learning, beyond constructivism.

INTRODUCTION

The verb "to construct" comes from the Latin con struere, which means to arrange or give structure. Ongoing structuring (organizing) processes are the conceptual heart of constructivism. In Western cultures, constructivists often trace their intellectual genealogy to Giambattista Vico (1668-1860), Immanual Kant (1724-1804), Arthur Schopenhauer (1788-1860) and Hans Vaihinger (1852 – 1933) (Rogoff, 1995). Among the earliest recorded proponents of some form of constructivism are Lao Tzu (6th Century B.C.) and Buddha (560 – 477 B.C.). Indian philosophy too reflects constructivism like *Yaksha Prasna*, and the dialogue between *Yama* and *Nachiketa*. This paper attempts to bring out strands of constructivism in the Bhagavad Gita.

Constructivist learning environments provide learning environments such as real-world settings or case-based learning (Jonassen, 1994). In order to fully engage and challenge the learner, the task and the learning environment should reflect the complexity of the environment that the learner should be able to function in at the end of learning. Learners must not only have ownership of the learning, problem solving process, but of the problem itself (Crotter, 1998).

Also, cognitive apprenticeship has been proposed as an effective model of learning which attempts to "enculturate students with authentic practices through activity and social interaction in a way similar to that evident and evidently successful in craft apprenticeship'' (Rogers, 1994).

The conversation between Sri Krishna and Arjuna took place in the battle field of Kurukshetra, *Dharmakshetra Kurukshetre…* (1.1) not in an ashram or gurukula.

Process of Knowledge Construction

Learning is a process where an individual constructs his or her own meaning through cognitive processes (Flavell and Piaget, 1963). Conceptual development is a continuous process of deepening and enriching connections and acquiring new layers of meaning (NCF 2005).

Knowledge and Experience

Children learn in a variety of ways – through experience.

Thinking and reflecting, and expressing oneself in speech, movements and writing –both individually and with others (NCF, 2005). Rather than transmission of knowledge, learning is an internal process of interpretations. Learners create interpretations based upon their past experiences and their interactions (Mc Mohan, 1997). They construct a personal understanding based on experiencing things and reflecting on those experiences.

Without direct knowledge and experience, the thirst for knowledge and attainment remains unquenched (Swami Rama, 1996). Sri Krishna tells Arjuna, *Tasmaat sarveshu kaaleshu yogayukto bhavarjuna* (8.27). *Tasmaat,* 'therefore'; *sarveshu kaaleshu,* 'at all times'; *yogayukto bhavarjuna,* 'Arjuna, be a yogi'. What is yoga? In the second chapter of the Gita *Saankhya Theory and Yoga Practice*, exposition of yoga is '*yogah karmasu kausalam'*, 'yoga is efficiency in action' (2.50).

The aspirant should gain knowledge and then practice the application of knowledge. Ignorance is dispelled with the help of sadhana and knowledge, practice and knowledge. Without direct knowledge and experience, the thirst for knowledge and attainment remains unquenched (Swami Rama, 1996).

All knowledge must lead to experience. Through direct experience one acquires the essential knowledge. *Sankhya* (path of knowledge) and *yoga* (path of action) go hand in hand. By practicing *yoga*, one can apply the philosophical truths of *Sankhya* in his daily life. Knowledge must be experienced. Experience should be reflected upon to internalize that knowledge. Through direct experience, one can acquire essential knowledge. *Gita says*, *ekam sankhyam cha yogam cha, yah pashyati sa pashyati* (5.5), 'One who sees *sankhyam* (jnana) and *yoga* (karma) as one, truly sees *Jnana vignana trptaatma*…6.8), 'satisfied with knowledge and wisdom'. *Jnana* here means merely understanding of the pros and cons of things. When it is experienced, *vijnana* one is satisfied. Theoretical knowledge is not enough, it has to be experienced (Ranganathananda, 2003). *Jnana yoga vyavasthitih...* (16.1), 'being established in the pursuit of jnana and yoga. Jnana is knowledge and yoga is its practical realization. It has to do with being engaged in the inquiry of jnana (knowledge) and experiencing the knowledge with a view to experience and experiment.

Basically, constructivism views that knowledge is not 'About' the world, but rather 'constitutuents' of the world (Kafai, 1996). Knowledge is constructed by an individual through his/her own experience. For lack of experience, one knowsm yet does not know (Radhakrishnan, 2003).

Active role of the learner

Constructivist approach highlights the active role of the learner (Jeffrey, 2005). The engagement of learners, through relevant activities, can further facilitate in the construction of mental images of relationships (NCF, 2005).

The Gita initiates struggle for a higher life in every individual, giving hints and suggestions of how one can be successful, but asks the individual person to do it himself/herself. Sankaracharya in his the commentary on the Bhagavad-Gita says, *Vivekachudamani*, verse 52, *Vastu svarupam sphutabodha chakshusa Svenaiva vedyam na tu panditena. Vastu svarupam,* 'The nature of truth' *svenaiva vedyam,* must be known by oneself with the *Sphutabodha chaksusa*, clear eye of reason, but *na tu panditena,* not by a scholar on your behalf.

Also in the Gita it is mentioned, *Uddharet atmana manavi …* (6.5) which means 'Raise oneself by one' exhorts the individual to put in effort. It reflects the active role played by the learner. *Prayatnaad yatamanastu…* (6:45), 'striving assiduously', this reflects the dynamism of the learner. *Jnanaatapasaa puuta...* (4.10), 'purified by the fire of knowledge. Knowledge comes through hard work and all learning must be assimilated. That knowledge, which is purely intellectual knowledge, becomes experiment knowledge through *jnana tapas* (Ranganathananda, 2003).

Aarurukshoh muneh yogam karma kaaranam uchyate…(6.3) 'One who strives to be a yogi, action is said to be the means'. *Yatanto yoginah cha enam …* (15.11) 'The yogis striving for truth'... *Jnana yoga vyavasthitih …* (16:1) 'Steadfastness in *yoga*' or 'being established in the pursuit of *jnana* and *yoga*'.

The verses above clearly reflect the active role of the aspirant in attaining *jnana*. First the student listens to the scriptures under the guidance of a competent teacher and later contemplates on it. This leads to gaining of the knowledge and living according to it. The first step is *Sravana*, the second *Manana*, one then attains the third step, *Nididhyasana*, which means assimilating the knowledge one has gained and living according to it. The next step is *Sakshatkara*, in which the knowledge of the whole is revealed (Swami Rama, 1996).

Constructivism too talks about the active role of the learner in pursuit of knowledge. Learners construct mental representations (images) of external reality through a given set of activities (experiences). The structuring and destruction of ideas are essential features as the learners progress in learning (NCF, 2005).

Inquiry and learning

Constructivism learning environment emphasizes knowledge construction instead of knowledge reproduction. Thoughtful reflection on experience is encouraged (Jonassen, 1994). Only by wrestling with the conditions of the problems at hand, seeing and finding his own solution (not in isolation but in correspondence with the teacher and other pupils) does one learn (John Dewey, 1966).

Active engagement involves inquiry, exploration, ques-

tioning, debates, application and reflection, leading to theory building and the creation of ideas/ positions (NCF, 2005). To develop students' thinking is to provide cognitive apprenticeship, problem solving and reasoning through regular lessons of the curriculum (Perkins, 1995). The spirit of inquisitiveness and critical thinking is to be ignited for constructivist learning. Thinking leads to construction of new layers of knowledge. Verse 32 of the tenth chapter of the Gita says *Vaadah pravadatam*… (10.32), *Pravadana* means discussion, disputation, and argument. There are, in our study of logic in India, three types of *Pravadana*. They are *vaada*, *jalpa* and *vitanda*. *Vaada* means discussion, jalpa 'disputation' and *vitanda*, 'argument'. In *vaada*, the objective is to find the truth through discussion (Ranganathananda, 2003).

Sri Adi Sankaracharya in the *Vivekachudamani*, 2nd chapter, verse 56, uses the word '*muni*'. He says, '*mananasilo munih,* 'thoughtful people'. A person with tremendous thinking is a *muni*. In verse 34 of the 4th Chapter of the Gita is mentioned, *pariprashnena*, 'repeated questioning' to understand the truth. Questioning is needed for developing knowledge. Not merely *prashna* or questioning, but *pariprashna*, constant questioning. What is this? Why should it be so? What is the truth of a thing? This is called *tattvam*. An aspirant should ask questions to resolve his doubts and gain clarity of mind (Rama, 1996).

In chapter 5, verse 11 of the Gita is mentioned*, Manasaa buddhyaa…yoginah karma kurvanti* ... (5.11). Y*oginah karma kurvanti*, 'yogis perform action' with *manasa*, 'by reason' and *buddhya*, 'by the discriminative faculty'. Any action has to be performed by reasoning and using discriminative faculty. Another verse *Jignasurapi yogasya shabdabrahma ativartate* (6.44), 'Even the inquirer into the nature of yoga goes beyond the jurisdiction of *shabdabrahma* or the *veda*'. *Jignasu* or the inquirer is not limited to the Vedic injunctions. He has become an experimenter. He can think and act for himself by himself. The injunction is secondary. He consults with a view to experiment and experience (Ranganathananda, 2003).The aspirant must direct his inquiry (Rama, 1996).

Mutual learning

Knowledge is derived from interactions. Individuals create meaning through their interactions with each other and with the environment they live in (Ernest, 1999; Gredler, 1997; Prawat and Floden, 1994). Humans are a part of the constructed environment (including social relationships); the environment is in turn one of the characteristics that constitutes the individual (Bredo, 1994; Gredler, 1997).

When a mind operates, its owner is interacting with the environment. Therefore, if the environment and social relationships among group members change, the tasks of

each individual also change (Bredo, 1994; Greddler, 1997). Learning this should not take place in isolation from the environment. Learning is active and social in its character (NCF, 2005).

Collaborative learning provides room for negotiations of meaning, sharing of multiple views and changing the internal representations of the external reality. Knowledge is developed through social negotiation and interaction, so collaboration in learning is valued. By participating in a broad range of activities with others, learners appropriate the outcomes produced by working together; they acquire new strategies and knowledge of the world and culture (Kukla, 2000).

The Bhagavad-Gita supports learning through mutual interaction. Verse 11 of the third chapter says, *Parasparam bhaavayantah shreyah paramavaapsyatha* (3.11) meaning cherishing one another, you shall gain the highest good. Mutuality, interdependence is the way to progress, not by isolation, helping each other, both will achieve progress (Ranganathananda, 2003).

Na buddhibhedam janayat ajnanam karmasanginam; Joshayet sarvakarmaani, vidvaan yuktah samaacharan (3.26). The enlightened one will steadily act in yoga and engage the ignorant also in all work.

Facilitating knowledge construction

Learning and understanding require interaction and conversation. Students need to grapple with problems in their zone of proximal development and they need the scaffolding provided by interaction with a teacher or other students. Scaffolding is a powerful conception of teaching and learning in which teachers and students create meaningful connections between teachers' cultural knowledge and the everyday experience and knowledge of the student (Mc Caslin, 2001).

A facilitator is in continuous dialogue or instructional conversation with the learners (De Vris, 1999). Instructional conversations are instructional because they are designed to promote learning, but they are conversations not lectures. They are situations in which students learn through interactions with teachers and/or other students. They have a thematic focus. In the Gita, the focus is on Arjuna who sank down in the midst of the battle field, casting away his bow and arrows, *Visrjya sasharam chapam* (1.47) to go ahead with the war instead of giving up arms.

Instructional conversations activate and use background knowledge. The facilitator either "hooks into" or provides students with pertinent background knowledge necessary. There is direct teaching when necessary. In the Gita, Sri Krishna asks Arjuna:

Kutastva kashmalamidam vishame samupasthitam; Anaaryajushthamasvargyamakirtikaramarjuna – 2.2 *Kutah,* 'wherefrom', *tva*, 'to you', wherefrom has come to

you; *kashmalam*, 'this very low attitude'. It is *Anaaryajustham*, the attitude is not adapted by *Aryas* (noble-minded person). *Asvargyam Akirtikaram*, it won't give you any glory either in heaven or on earth. Sri Krishna continues in the next verse, *Klaibyam maasma gamah, paartha naitat tvayi upapadyati; Kshudram hrdayadaurbalyam tyaktottistha parantapa* – 2.3

Ma sma gamah paartha, 'don't fall a prey O Arjuna' to *Klaibyam*, chicken heartedness. Why? *naitat tvayi upapadyati*, 'it does not befit you'. *Kshudram hrdayadaurbalyam*, 'mere weakness of the heart' *tyaktva*, give it up and *uttishta*, stand up.

Here, Arjuna suffers from despondency and seeks Sri Krisna's help. Sri Krisna helps him to think. He does not pat him on his back to say: Arjuna, you have done well. You are showing compassion. Instead, he exhorts him to give up his chicken-heartedness and stand.

There is promotion of more complex language, expression, bases for statements or positions. These two verses raise questions in Arjuna's mind. He does not accept blindly what Sri Krisna says. The verses 4 to 10 of 2nd chapter show the different doubts, apprehensions and questions which arise in Arjuna's mind.

Students when motivated, are likely to engage in meaningful learning. In the Gita, Sri Krishna motivates Arjuna, thus, *Tasmaat tvam uthistha yasho labhasva…* (11.33). *Tasmaat tvam uthistha*, 'therefore, you raise yourself', *yasho labhasva*, 'acquire the glory'.

Constructivist approach highlights the active role of the learner. The emphasis turns away from the instructor and the content towards the learner (Greene and Arkerman, 1995). This dramatic change implies that a facilitator needs to display a totally different set of skills. A facilitator provides guidelines and creates the environ-ment for the learner to arrive at his own conclusion; a facilitator is a continuous dialogue with the learner (Botella, 1994). A facilitator should also be able to adapt the learning expression in 'mid air' by using his or her own initiative in order to steer the learning experience to where the learner wants to create value (Di Vesta, 1987).

A facilitator never dictates what a learner should do. Forced instructions are ineffective and create aversion. Sri Krishna tells Arjuna in the end of his conver-sation…*Vimarshayaitad asheshena yathecchasi tathaa kuru…* (18.63).

'Try to think over and decide for yourself your course of action'.

When a teacher imparts knowledge, he wants his student to use his free will, to be courageous and to make experiments to experience and then to realize what is right for him. Teaching should not be forced upon as a commandment. It is up to the student to choose, practice and do as he likes. There comes a stage when one goes through a period of argumentation and this state of mind should not be shunned until all doubts are resolved. Sri Krishna does not give up. He helps Arjuna to discover and understand his true nature and discharge his duties.

All the different chapters of the Bhagavad-Gita that is from the 'Way of Self Knowledge' through the 'Wisdom of Renunciation and Liberation' show different strategies adopted by Sri Krisna as a facilitator to help Arjuna construct his knowledge.

Beyond constructivism – Bhagavad Gita

The verses below reflect going beyond constructivism.

Jnanena tu tadajnanam yesham nashitamaatmanaah; Tesham aadityavajjnaanam prakaashayati tatparan. - 5.16.

'But whose ignorance or spiritual blindness is destroyed by knowledge (of the Self) – that knowledge of theirs, like the sun, reveals the Supreme (Brahman). The sun was there, but hidden by clouds. Similarly, jnana reveals to you your own infinite dimension. You are not a chip of these svabhava or nature. What is the significance of svabhava? The whole of reality is svabhava, but it has two dimensions- Apara prakriti (ordinary svabhava) and para prakriti (higher svabhava). We have to move from apara prakriti to para prakruti (Ranganathananda, 2003).

Tadbuddayah tadaatmanah tannishtah tatparaayanah; Gacchantyapunaraavrittim jnana nirdhuta kalmashah. (5.17)

Tat Buddayah, 'those whose buddhi or intellect or reason is devoted to 'That' Supreme Reality', *Tat atmanah,* 'who has that as one's own self', *Tat nisthah*, 'who have constant discipline in that'. Such persons, *gacchanti*, 'attain', *apunaravrttim*, 'real spiritual liberation'. According to Vedanta, the highest goal of human evolution is spiritual liberation or realization of 'That' as one's self (Krishnan, 2003).

Sraddhavan labhate jnanam…. Jnanam labdhva param shantimachirenaadhigacchati - 4.39

If you have faith (sraddha), you will attain knowledge (jnana), when you get this jnanam, in no distant time, you will achieve supreme peace. The aspirant must direct his power of concentration towards the attainment of tranquility and then to self-realization (RadhaKrishnan, 2003).

…*Jneyam yattat pravakshyaami yajjnaatva amritam ashnute* (3.12)

'I shall tell you the truth to be known, realizing which one experiences immortality'.

Jneyam is a Sanskrit word in the group, *jnana*, 'knowledge', *jneya,* 'the object of knowledge' and *jnata*, 'the knower', also known as *triputi*. In Vedanta, in the ulti-

mate understanding of reality, these fuse into one. There is elimination of triputi bheda. Jnana means 'pure consciousness', it is the consummation of every experience (Ranganathananda, 2001). To live in this world, these three are needed: the object of knowledge, the knower and the instrument. Actions cannot be performed without these three essential; one must have profound knowledge of them for the accomplishment of any work (Rama, 1996).

Yatanto   yoginaschainam pashyantyaatmanyavashitam… (15.11), 'The yogis striving (for perfection) behold their dwelling in oneself'. The yogi has to attain many realms of wisdom before he can attain the highest wisdom. Sri Krishna tells Arjuna, *yogastah kuru karmani* (2.48) meaning, being steadfast in yoga, perform action. What is yoga? Equanimity, mind in perfect balance is called yoga (Ranganathananda, 2002). *Yogarudhasya tesyaiva samah karanam uchyate* …(6.3), 'One who has already risen to the level of yoga, there is cessation of effort. *Samah*, 'complete fulfillment comes through self-realization'. Here the individual attains complete fulfillment.

What is nature of 'Truth'? 'Sri Krisna further tells tattvam, napunarmoham evam yasyasi pandava … (4.35), 'This kind of delusion will never come again'. *Tad viddhi…jnaninah tattvadarshinah*. (4.34), 'know that' from those who have realized the truth. *Tattvam* is different from *matam* or opinion. In the Vedanta, the supreme tattvam is Brahman. So, we can achieve, through the help of spirituality competent teachers, this knowledge just as we get other types of knowledge from other teachers. They are all knowledge, may be physical, psychological or may be spiritual. But, for Vedanta, all knowledge is saved. And we are in search of knowledge. That is why we are advised to light that fire of knowledge in the heart of the child. The teacher in the school helps him or her to make the fire flame forth into a big fire, so that he or she can digest all that one has learnt, animate them or make them part of oneself. Knowledge of Truth destroys even the possibility of delusion. The Sadhaka does not waste his time brooding on concerns that dissipate the mind. With one-pointed inquiry into the knowledge of Atman, he completely quenches thirst for knowing the truth (Rama, 1996).

Conclusion

This paper is an attempt to study the glimpses of constructivism in the Gita. It is imperative that we go back to our roots to find the treasure–chest of knowledge therein. It also makes an effort to see beyond constructivism in Gita. It looks into the process of knowledge construction, mutual learning and facilitation of learning. Knowledge is what we learn and construct for ourselves as we learn. The Gita goes beyond constructivism, to know the ultimate truth and experience it after which there is nothing beyond…

REFERENCE

Botella L (1994). Personal Construct Psychology.New York: Springer-Verlag.
Bredo E (1994). "Reconstructing Educational Psychology: Situated cognition and Deweyian Pragmatism". Educ. Psychol., 29(1): 23-25.
Crotty M (1998). The foundations of Social Research: Meaning and Perspective in the research process. London: Sage Publications.
De Vris R (1999).Developing Constructivist Early Childhood Curriculum: Practical Principles and Activities. New York: Teachers College Press.
Dewey J (1966). Democracy and Education. New York: Free Press.
Ernest P (1999). Social Constructivism as a Philosophy of Mathematics. New York: Oxford University Press.
Di Vesta FJ (1987). "The effects of encoding variability, processing activity and rule example sequences on the transfer of conceptual rules". J. Educ. Psychol., 73: 108-119.
Gredler ME (1997). Learning and Instruction: Theory into Practice. Upper Saddle River,NJ: Prentice Hall.
Greene S, Ackerman JM (1995). "Expanding the Constructivist Metaphor: A Rhetorical perspective on literacy research and Practice". Rev. Educ. Res., 65: 383-420.
Jeffery G (2005). The Creative College: building a successful learning culture in the arts. Jeffery, G (Ed). Sage Publications, London.
Jonassen DH (1994). "Instructional design models for well-structured and ill- structured problem solving learning outcomes". Educ. Technol. Res. Dev. 45: 65-94.
Kafai Y (1996). Construction in practice: Designing, thinking and learning in a digital world. Mahwah, NJ: Lawrence Erlbaum Associates.
Kukla A (2000). Social Constructivism and the Philosophy of Science. New York:Routledge.
Mc Caslin M (2001). The Informal Curriculum. New York: Macmillan.
Mc Mohan M (1997). Social Construction and the World Wide Web- A paradigm for learning. Cambridge, UK: Cambridge University Press.
NCF (2005). National curriculum framework 2005. New Delhi: NCERT.
Perkins DN (1995). Smart Schools: From training memories to educating minds. New York: Free Press.
Piaget J (1963). To understand is to invent. New York: Grossman.
Prawat RS, Fleoden RE (1994). "Philosophical perspectives on constructivist views of learning". Educ. Psychol. 29(1): 37-48.
Radhakrishnan S (2003). The Bhagavad-Gita. New Delhi: Harper Collins.
Rama S (1996). Perennial psychology of the Bhagavad-Gita. Pennsylvania, USA: The Himalayan International Institute.
Ranganathananda S (2001). Universal Message of the Bhagavad-Gita.Vol.I. Kolkata: Advaita Ashrama.
Ranganathananda S (2002). Universal Message of the Bhagavad-Gita.Vol.II. Kolkata: Advaita Ashrama.
Ranganathananda S (2003). Universal Message of the Bhagavad-Gita.Vol.III. Kolkata: Advaita Ashrama.
Regoff B (1990). Apprenticeship in thinking. New York, NY: Oxford University Press.
Rogers CR (1994). Freedom to learn. (3rd Ed.). Columbus, OH: Merrill.