

Consciousness and Freedom according to the Śiva Sūtras

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Abstract

The logic of materialist science fails when observers are considered. How can inanimate matter, governed by fixed laws, lead to mind? To bring in consciousness as a separate category like space, time, matter, as suggested by many physicists and neuroscientists, leads to further paradox. This very issue was considered with great subtlety in the Vedic tradition of India. Here we consider one of the late classics of this tradition that deals with the question of consciousness, laws, and freedom—the justly famous Śiva Sūtras (c. 800 C.E.). We present a new translation of the Śiva Sūtras along with a commentary.

रूपं रूपं प्रतिरूपो बभूव
तदस्य रूपं प्रतिचक्षणाय ।

rūpaṃ rūpaṃ pratirūpo babhūva
tadasya rūpaṃ praticakṣaṇāya

He became the original form of every form
It is his form that is everywhere to be seen.

-Rigveda 6.47.18

Introduction

Our knowledge of the physical world is based on empirical associations. These associations reveal the laws of the physical world. But how do we study the nature of consciousness? There is no way to observe one's own awareness because we are aware through the associations with the phenomenal world. The Vedas deal precisely with this central question of the nature of knowledge. The consciousness aspect of the Vedas was emphasized most emphatically by Dayānanda (1824-1883) and Aurobindo (1872-1950). It is seen with directness in the Upanishads. For an overview of the Vedic tradition see the recent book coauthored by me (Feuerstein et al, 1995); this book summarizes new insights from archaeology and history of science.

It has been less than a century that the theories of relativity and quantum physics have brought the observer centerstage in physics. It is not surprising, therefore, that the Vedic ideas, with their emphasis on cognition, have been a source of enduring inspiration in modern science. As is well known, the idea of brahman in the Vedas being a representation of all possibilities, as in the statement *prajñānaṃ brahman*, was the inspiration in the conception of the wavefunction of quantum theory defined as a sum of all possibilities (Moore, 1989; Kak, 1995b).

Modern science has had great success in explaining the nature of the physical world. But these successes have not brought us any closer to the resolution of the mystery of consciousness. In the application of quantum theory to the macroworld and in the neuropsychological explorations of the brain, one cannot any longer ignore the question of the observer (e.g. Kak, 1995a, 1995b, 1996a, 1996b, 1996c). The notion that the mind emerges somehow out of the complexity of the connections inside the brain is too simplistic to be taken seriously. It is like Baron Münchhausen pulling himself out of the bog by his own bootstraps! If mind emerges from matter, how does it obtain autonomy? If the world is governed by laws then how do we have free will? If our autonomy (free will) is an epiphenomenon then are we walking shadows? Should one consider consciousness to be the ground-stuff of reality? If that is so then what is the connection between consciousness and the physical world?

These are just the questions that we come across repeatedly in the Indian tradition. Is there something to be learnt from the insights of this tradition?

The *Aphorisms of Shiva (Śiva Sūtras) (SS)* are a late reiteration of the Vedic view of consciousness. According to legend, Vasugupta (c. 800 C.E. in Kashmir) 'saw' the aphorisms (sūtras) in his dream. Śiva Sūtras led to the flowering of the Kashmir school of consciousness (Kashmir Shaivism). It is due to a very clear exposition of the issues the Kashmir Shaivism has come to be quite influential in contemporary scholarship.

In this paper we present a translation, along with the Sanskrit text, of the 78 aphorisms of the SS. (The 78 number itself has a very important significance in the Vedic system of knowledge may be seen elsewhere (e.g. Kak 1994, 1995c)). The commentary provided in this paper is not based on the commentatorial tradition from within Kashmir Shaivism (see e.g. Jaideva Singh, 1979; Dyczkowski, 1992) so as not to burden the reader with the unfamiliar vocabulary of the tradition. I present my translation, as well as my commentary, in as modern terms as possible.

The universal and the individual in the SS

According to SS the individual knowledge comes from associations. Owing to this our phenomenal knowledge can only be in terms of the associations of the outer world. But the associations in themselves need something to bind them together.¹ The binding energy is called *matrika* (*mātrkā*). It is *matrika* that makes it possible for us to understand words or symbols strung together as language. Lacking *matrika*, computers cannot understand language or pictures.

Universal consciousness, as a unity, is called Shiva or Bhairava. Shiva makes it possible for the material associations of the physical world to have meaning. But the domain of the union of Shiva and the phenomenal world is puzzling and astonishing (1.12).

This is a restatement of a metaphor that goes back to the Rigveda where the mind is seen as two birds are sitting on a tree where one of them eats the sweet fruit and the other looks on without eating (RV 1.164.20); one of the birds represents the universal consciousness, the other the individual one. There is only one bird; the other is just the image of the first energized by the fruit! There is a paradox here which is left unresolved. But certainly root consciousness (Shiva, *prakāśa*, *cit*) is what makes it possible to comprehend. In later texts the capacity of consciousness to reflect on itself is called *vimarśa*.

Another metaphor that has been used elsewhere is that of the sun of consciousness illuminating the associations in the mind. What facilitates this illumination is the “power of the will.” Innate knowledge is taken to emerge from the mind, which is equated with mantra, taken here to not as a formula but the inherent capacity to reflect. Mantra leads to the knowledge of the reality that lies beyond material associations.

Consider sound made meaningful in terms of strings that, as words, have specific associations. But what about the ‘meaning’ of elementary sounds? This happens as one opens the ‘crack’ between the universal and the individual. The individual then gets transformed into a state where knowledge is his food.

The detachment from one’s own associations is the key to the knowledge of the self—the universal being. One is supposed to take oneself as an outsider. By separating the senses from the source of consciousness, one is able to reach to the heart of the self.

¹This is the binding problem of neuroscience to which no solution, within the standard scientific paradigm, is known (see Kak 1995a for details).

The Śiva Sūtras

This section presents my new English translation. For earlier translations see Jaideva Singh (1979) and Dyczkowski (1992). Note that Jaideva Singh has 77 sutras whereas Dyczkowski has 79; for the reason why the canonical text is likely to have had 78 sutras see Kak (1994).

1. Universal consciousness

- 1.1 Consciousness is the self.
- 1.2 (Ordinary) knowledge consists of associations.
- 1.3 Sets of axioms generate structures.
- 1.4 The ground of knowledge is māṭṛkā.
- 1.5 The upsurge (of consciousness) is Bhairava.
- 1.6 By union with the energy centers one withdraws from the universe.
- 1.7 Even during waking, sleep, and deep sleep one can experience the fourth state (transcending consciousness).
- 1.8 (Sensory) knowledge is obtained in the waking state.
- 1.9 Dreaming is free ranging of thoughts.
- 1.10 Deep sleep is māyā, the irrational.
- 1.11 The experiencer of the three states is the lord of the senses.
- 1.12 The domain of the union is an astonishment.
- 1.13 The power of the will is the playful umā.
- 1.14 The observed has a structure.
- 1.15 By fixing the mind on its core one can comprehend perceivable and emptiness.
- 1.16 Or by contemplating the pure principle one is free of the power that binds (to associations).
- 1.17 Right discernment is the knowledge of the self.
- 1.18 The bliss of the sight is the joy of samadhi.
- 1.19 The body emerges when the energies unite.
- 1.20 Elements unite, elements separate, and the universe is gathered.
- 1.21 Pure knowledge leads to a mastery of the wheel (of energies).
- 1.22 The great lake (of space-time) is experienced through the power of mantra.

2. The emergence of innate knowledge

- 2.1 The mind is mantra.
- 2.2 Effort leads to attainment.
- 2.3 The secret of mantra is the being of the body of knowledge.
- 2.4 The emergence of the mind in the womb is the forgetting of common knowledge.
- 2.5 When the knowledge of one's self arises one moves in the sky of consciousness—the Shiva's state.
- 2.6 The guru is the means.
- 2.7 The awakening of the wheel of māṭṛkā (the elemental energies).
- 2.8 The body is the oblation.
- 2.9 The food is knowledge.
- 2.10 With the extinction of knowledge emerges the vision of emptiness.

3. The transformations of the individual

- 3.1 The mind is the self.
- 3.2 (Material) knowledge is bondage (association).
- 3.3 Māyā is the lack of discernment of the principles of transformation.
- 3.4 The transformation is stopped in the body.
- 3.5 The quieting of the vital channels, the mastery of the elements, the withdrawal from the elements, and the separation of the elements.
- 3.6 Perfection is through the veil of delusion.
- 3.7 Overcoming delusion and by boundless extension innate knowledge is achieved.
- 3.8 Waking is the second ray (of consciousness).
- 3.9 The self is the actor.
- 3.10 The inner self is the stage.
- 3.11 The senses are the spectators.
- 3.12 The pure state is achieved by the power of the intellect.
- 3.13 Freedom (creativity) is achieved.

- 3.14 As here so elsewhere.
- 3.15 Emission (of consciousness) is the way of nature and so what is not external is seen as external.
- 3.16 Attention to the seed.
- 3.17 Seated one sinks effortlessly into the lake (of consciousness).
- 3.18 The measure of consciousness fashions the world.
- 3.19 As (limited) knowledge is transcended, birth is transcended.
- 3.20 Māheshvari and other mothers (sources) of beings reside in the sound elements.
- 3.21 The fourth (state of consciousness) should be used to oil the (other) three (states of consciousness).
- 3.22 Absorbed (in his nature), one must penetrate (the phonemes) with one's mind.
- 3.23 The lower plane arises in the center (of the phoneme).
- 3.24 A balanced breathing leads to a balanced vision.
- 3.25 What was destroyed rises again by the joining of perceptions with the objects of experience.
- 3.26 He becomes like Shiva.
- 3.27 The activity of the body is the vow.
- 3.28 The recitation of the mantras is the discourse.
- 3.29 Self-knowledge is the boon.
- 3.30 He who is established is the means and knowledge.
- 3.31 The universe is the aggregate of his powers.
- 3.32 Persistence and absorption.
- 3.33 Even when this (maintenance and dissolution) there is no break (in awareness) due to the perceiving subjectivity.
- 3.34 The feeling of pleasure and pain is external.
- 3.35 The one who is free of that is alone (with consciousness).
- 3.36 A mass of delusion the mind is subject to activity.
- 3.37 When separateness is gone, action can lead to creation.
- 3.38 The power to create is based on one's own experience.

- 3.39 That which precedes the three (states of consciousness) vitalizes them.
- 3.40 The same stability of mind (should permeate) the body, senses and external world.
- 3.41 Craving leads to the extroversion of the inner process.
- 3.42 When established in pure awareness, (the craving) is destroyed and the (empirical) individual ceases to exist.
- 3.43 Although cloaked in the elements one is not free, but, like the lord, one is supreme.
- 3.44 The link with the vital breath is natural.
- 3.45 Concentrating on the center within the nose, what use are the left and the right channels or *suṣumnā*?
- 3.46 May (the individual) merge (in the lord) once again.

शिवसूत्र shivasuutra²

१. शाम्भवोपाय

चैतन्यमात्मा । १.१ ।
ज्ञानं बन्धः । १.२ ।
योनिवर्गः कलाशरीरम् । १.३ ।
ज्ञानाधिष्ठानं मातृका । १.४ ।
उद्यमो भैरवः । १.५ ।
शक्तिचक्रसन्धाने विश्वसंहारः । १.६ ।
जाग्रत्स्वप्नसंश्लेषभेदे त्रयोभोगसंभवः । १.७ ।
ज्ञानं जाग्रत् । १.८ ।
स्वप्नो विकल्पाः । १.९ ।
अविवेको मायासौषप्तम् । १.१० ।
त्रितयभोक्ता वीरेशः । १.११ ।
विस्मयो योगभूमिकाः । १.१२ ।
इच्छा शक्तिरुमा कमारी । १.१३ ।
दृश्यं शरीरम् । १.१४ ।
हृदये चित्तसंघट्टाद् दृश्यस्वापदर्शनम् । १.१५ ।
शुद्धतत्त्वसन्धानाद् वा अपशःशक्तिः । १.१६ ।
वितर्क आत्मज्ञानम् । १.१७ ।
लोकानन्दः समाधिसखम् । १.१८ ।
शक्तिसन्धाने शरीरोत्पत्तिः । १.१९ ।
भूतसन्धान भूतपृथक्त्व विश्वसंघट्टाः । १.२० ।
शुद्धविद्योदयाच्चक्रेशत्व सिद्धिः । १.२१ ।
महाहृदानसन्धानान्मन्त्रवीर्यानभवः । १.२२ ।

२. शाक्तोपाय

चित्तं मन्त्रः । २.१ ।
प्रयत्नः साधकः । २.२ ।
विद्याशरीरसत्ता मन्त्ररहस्यम् । २.३ ।
गर्भे चित्तविकासोऽविशिष्ट विद्यास्वप्नः । २.४ ।
विद्यासमन्धाने स्वाभाविके खेचरी शिवावस्था । २.५ ।
गःरुपायः । २.६ ।
मातृकाचक्रसम्बोधः । २.७ ।
शरीरं हविः । २.८ ।
ज्ञानं अन्नम् । २.९ ।
विद्यासंहारे तद्वत् स्वप्न दर्शनम् । २.१० ।

३. आणवोपाय

आत्मा चित्तम् । ३.१ ।
ज्ञानं बन्धः । ३.२ ।
कलादीनां तत्त्वानां अविवेको माया । ३.३ ।
शरीरे संहारः कलानाम् । ३.४ ।

नाडी संहार भूतजय भूतकैवल्य भूतपृथक्त्वानि । ३.५ ।
मोहावरणात् सिद्धिः । ३.६ ।
मोहजयाद् अनन्ताभोगात् सहजविद्याजयः । ३.७ ।
जाग्रद् द्वितीयकरः । ३.८ ।
नर्तक आत्मा । ३.९ ।
रङ्गोऽन्तरात्मा । ३.१० ।
प्रेक्षकाणीन्द्रियाणि । ३.११ ।
धीवशात् सत्त्वसिद्धिः । ३.१२ ।
सिद्धः स्वतन्त्रभावः । ३.१३ ।
यथा तत्र तथान्यत्र । ३.१४ ।
विसर्गस्वाभाव्याद् अवहिः स्थितेस्तत्स्थितिः । ३.१५ ।
बीजावधानम् । ३.१६ ।
आसनस्थः सखं हृदे निमज्जति । ३.१७ ।
स्वमात्रा निर्माणं आपादयति । ३.१८ ।
विद्या अविनाशे जन्म विनाशः । ३.१९ ।
कवर्गादिषः माहेश्वर्याद्याः पशमातरः । ३.२० ।
त्रिषः चतुर्थं तैलवदासेच्यम् । ३.२१ ।
मग्नः स्वचित्तेन प्रविशेत् । ३.२२ ।
प्राण समाचारे समदर्शनम् । ३.२३ ।
मध्येऽवर प्रसवः । ३.२४ ।
मात्रास्वप्रत्यय सन्धाने नष्टस्य पन्नरुत्थानम् । ३.२५ ।
शिवतल्लयो जायते । ३.२६ ।
शरीरवृत्तिर्व्रतम् । ३.२७ ।
कथा जपः । ३.२८ ।
दानं आत्मज्ञानम् । ३.२९ ।
योऽविपस्थो जाहेतश्च । ३.३० ।
स्वशक्ति प्रचयोऽस्य विश्वम् । ३.३१ ।
स्तिथिलयौ । ३.३२ ।
तत् प्रवृत्तावप्यनिरासः संवेत्तृभावात् । ३.३३ ।
सख दःखयोर्बहिर्मननम् । ३.३४ ।
तद्विमक्तस्तः केवली । ३.३५ ।
मोहप्रतिसंहतस्तः कर्मात्मा । ३.३६ ।
भेद तिरस्कारे सर्गान्तर कर्मत्वम् । ३.३७ ।
करणशक्तिः स्वतोऽनभवात् । ३.३८ ।
त्रिपदाद्यनप्राणनम् । ३.३९ ।
चित्तस्थितिवत् शरीर करण बाह्येषः । ३.४० ।
अभिलाषाद्बहिर्गतिः संवाह्यस्य । ३.४१ ।
तदारूढप्रमितेस्तत्क्षयाज्जीवसंक्षयः । ३.४२ ।
भूतकञ्चुकी तदा विमक्तो भूयः पतिसमः परः । ३.४३ ।
नैसर्गिकः प्राणसंबन्धः । ३.४४ ।
नासिकान्तर्मध्य संयमात् किमत्र सव्यापसव्य सौषप्नेषः ।
३.४५ ।
भूयः स्यात् प्रतिमीलनम् । ३.४६ ।

ॐ तत् सत्

²Send corrections to Subhash Kak kak@ee.lsu.edu
The devanaagari/Sanskrit text is generated using
ITRANS with Velthuis' fonts.

The Sanskrit text³

The First Part: Śāmbhavopāya

- caitanyamātmā [1.1]
jñānaṃ bandhaḥ [1.2]
yonivargaḥ kalāśarīraṃ [1.3]
jñānādhiṣṭhānam mātṛkā [1.4]
udyamo bhairavaḥ [1.5]
śakticakrasandhāne viśvasaṃhāraḥ [1.6]
jāgratsvapnasuṣuptabhede turyābhogasaṃbhavaḥ [1.7]
jñānaṃ jāgrat [1.8]
svapno vikalpāḥ [1.9]
aviveko māyāsaṣuptam [1.10]
tritayabhoktā vīreśaḥ [1.11]
vismayo yogabhūmikāḥ [1.12]
icchā śaktir umā kumārī [1.13]
dṛśyaṃ śarīram [1.14]
hṛdaye cittasaṃghaṭṭād dṛśyasvāpadarśanam [1.15]
śuddhatattvasandhānād vā apaśuśaktiḥ [1.16]
vitarka ātmajñānam [1.17]
lokānandaḥ samādhisukham [1.18]
śaktisandhāne śarīrotpattiḥ [1.19]
bhūtasandhāna bhūtapṛthaktva viśvasaṃghaṭṭāḥ [1.20]
śuddhavidyodayāccakreśatva siddhiḥ [1.21]
mahāhradānusandhānānmantravīryānubhavaḥ [1.22]

The Second Part: Śāktopāya

- cittaṃ mantraḥ [2.1]
prayatnaḥ sādhaḥ [2.2]
vidyāśarīrasattā mantrarahasyam [2.3]
garbhe cittavikāso 'viśiṣṭa vidyāsvapnaḥ [2.4]
vidyāsamutthāne svābhāvike khecarī śivāvasthā [2.5]
gururupāyaḥ [2.6]
mātṛkācakrasambodhaḥ [2.7]
śarīraṃ haviḥ [2.8]
jñānam annam [2.9]
vidyāsaṃhāre taduttha svapna darśanam [2.10]

The Third Part: Āṇavopāya

- ātmā cittam [3.1]
jñānam bandhaḥ [3.2]
kalādīnāṃ tattvānām aviveko māyā [3.3]

³The has standard diacritical marks

śarīre saṃhāraḥ kalānām [3.4]
 nāḍī saṃhāra bhūtajaya bhūtakeaivalya bhūtapṛthaktvāni [3.5]
 mohāvaraṇāt siddhiḥ [3.6]
 mohajayād anantābhogāt sahajavidyājayaḥ [3.7]
 jāgrad dvitīyakaraḥ [3.8]
 nartaka ātmā [3.9]
 ra.ngo'antarātmā [3.10]
 prekṣakāṇīndriyāṇi [3.11]
 dhīvaśāt sattvasiddhiḥ [3.12]
 siddhaḥ svatantrabhāvaḥ [3.13]
 yathā tatra tathānyatra [3.14]
 visargasvābhavyād abahiḥ sthitestatsthiḥ [3.15]
 bijāvadhānam [3.16]
 āsanasthaḥ sukhaṃ hrade nimajjati [3.17]
 svamātrā nirmāṇam āpādayati [3.18]
 vidyā avināśe janma vināśaḥ [3.19]
 kavargādiṣu māheśvaryādyāḥ paśumātarāḥ [3.20]
 triṣu caturthaṃ tailavadāsecyam [3.21]
 magnaḥ svacittena praviśet [3.22]
 prāṇa samācāre samadarśanam [3.23]
 madhye'vara prasavaḥ [3.24]
 mātrāsvapratyaya sandhāne naṣṭasya punarutthānam [3.25]
 śivatulyo jāyate [3.26]
 śarīravṛttir vratam [3.27]
 kathā japaḥ [3.28]
 dānam ātmajñānam [3.29]
 yo'vipastho jñāhetuśca [3.30]
 svaśakti pracayo'sya viśvam [3.31]
 stithilayau [3.32]
 tat pravṛttāvapyanirāsaḥ saṃvettrbhāvāt [3.33]
 sukha duḥkhayor bahirmananam [3.34]
 tadvimuktastu kevalī [3.35]
 mohapratisaṃhatastu karmātmā [3.36]
 bheda tiraskāre sargāntara karmatvam [3.37]
 karaṇaśaktiḥ svato'nubhavāt [3.38]
 tripadādyanuprāṇanam [3.39]
 cittasthitivat śarīra karaṇa bāhyeṣu [3.40]
 abhilāṣādbahirgatiḥ saṃvāhyasya [3.41]
 tadārūḍhapramites tatksayāj jīvasaṃkṣayaḥ [3.42]
 bhūtakeaṅcukī tadā vimukto bhūyaḥ patisamaḥ paraḥ [3.43]
 naisargikaḥ prāṇasaṃbandhaḥ [3.44]
 nāsikāntarmadhya saṃyamāt kimatra savyāpasavya sauṣumneṣu [3.45]
 bhūyaḥ syāt pratimīlanam [3.46]

Concluding Remarks

This brief paper is just an introduction for the cognitive scientist to the riches of the Kashmir school of consciousness. The contents of SS are very cryptic and one may not be convinced that it represents any advance over the ancient Upanishadic tradition. But later texts speak of important details in the process of cognition. The structure of the Kashmir school of consciousness goes beyond the categories of Sā.nkhya. I hope that others will examine other classics in this tradition (e.g. Abhinavagupta, 1987, 1989; Dyczkowski, 1987) and see for themselves whether it has any lessons for contemporary science; further connections between modern science and this tradition are presented in Kak (1992/4).

The Sanskritists who have worked on Indian theories of consciousness have been ignorant of the important insights of modern physics relating to the process of observation. The argument that one need not know contemporary insights since they were unknown when the old texts were written is just plain wrong. Schrödinger's use of Vedic insights is testimony to the fact that the metaphors in use by the ancient thinkers were holistic and similar to that of modern physics. But do we need to go beyond even this? Could the process of meditation on the nature of consciousness have led to insights that remain beyond the pale of our current understanding of the nature of reality?

Kashmir Shaivism deals with concepts that also have a bearing on questions such as: How do the senses emerge in the emergence of the mind? Could there be more senses than we possess? The whole mythology of Shiva (e.g. Kramrisch, 1981) is a retelling of the astonishing insights of the science of consciousness.

References

- Abhinavagupta, 1987. *Tantrāloka. With the Commentary Viveka of Jayaratha*, R.C. Dwivedi and N. Rastogi (eds.). Motilal Banarsidass, Delhi.
- Abhinavagupta, 1989. *A Trident of Wisdom*. State University of New York Press, Albany.
- Dyczkowski, M.S.G., 1987. *The Doctrine of Vibration*. State University of New York Press, Albany.
- Dyczkowski, M.S.G., 1992. *The Aphorisms of Śiva: The ŚivaSūtra with Bhāskara's Commentary, the Vārttika*. State University of New York Press, Albany.
- Feuerstein, G., Kak, S.C., Frawley, D., 1995. *In Search of the Cradle of Civilization*. Quest Books, Wheaton, IL.
- Kak, S.C., 1992/4. Reflections in clouded mirrors: selfhood in animals and machines. Presented at the *Symposium on Aliens, Apes, and Artificial Intelligence: Who is a person in the postmodern world?* Southern Humanities Council Annual Conference, February 13, 1993.
- Kak, S.C., 1994. *The Astronomical Code of the R̥gveda*. Aditya, New Delhi.
- Kak, S.C., 1995a. Quantum neural computing. *Advances in Imaging and Electron Physics*, vol 94, 259-313.

- Kak, S.C., 1995b. The three languages of the brain: quantum, reorganizational, and associative. *4th Appalachian Conf. on Behavioral Neurodynamics*, Radford, VA, September.
- Kak, S.C., 1995c. The astronomy of the age of geometric altars. *Q. J. R. astr. Soc.*, 36, 385-396.
- Kak, S.C., 1996a. Information, physics, and computation. *Foundations of Physics*, 26, 127-137.
- Kak, S.C., 1996b. Speed of computation and simulation. *Foundations of Physics*, 26, in press.
- Kak, S.C., 1996c. Why machines cannot be conscious. Presented at *Towards a Science of Consciousness, TUCSON II*, Tucson, April 8-13.
- Kramrisch, S., 1981. *The Presence of Śiva*. Princeton University Press, Princeton.
- Moore, W., 1989. *Schrödinger: Life and Thought*. Cambridge University Press, Cambridge.
- Singh, Jaideva, 1979. *Śiva Sūtras: The Yoga of Supreme Identity*. Motilal Banarsidass, Delhi.