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Arise ! Awake ! And stop not till the Goal is reached.

The Divine Message

Sage Vasiṣṭha points out that *manas* and *karma* go together in the way in which fire and heat go together. One cannot be without the other. When one is destroyed, the other is automatically destroyed. Mind is characterized by *spāṇḍana*, vibrations. It is these vibrations that lead ultimately to actions and their consequences.

Vasiṣṭha next shows that *manas* is called by various names on the basis of the functions it performs. Mind is called *buddhi* when its function is discrimination and decision. It is called *ahankāra* when, due to delusion, the self-principle is identified with the body. It is called *citta* when there is considerable vacillation. It is called *kalpanā* when it imagines all kinds of thoughts and things. It is called *vāsanā* when the past impressions produce pleasure and pain now. And so on. Vasiṣṭha asserts finally that these various names arise as a result of the operation of *kāka tāliya nyāya*. They arise out of accidental relationships which lead to identification and naming on the basis of functions.

According to Vasiṣṭha, the entire world arises because of the *manas*. Other than the *manas* there is only the Brahman. It is the *manas* that is responsible for the origination of the world. But the Brahman is beyond these variations and modification. Rational investigation leads to the dissolution of the *manas*. With its dissolution there is the realization of the highest good, namely, liberation. Rāma asks how the *manas* is able to originate and manifest the world, if the Brahman is *cinmaya*, pure consciousness.

Vasiṣṭha says that there are three *ākāśas*: the *cidākāśa* the pure consciousness, the *cittākāśa*, the mental activity and the *bhūtākāśa*, the space of the elements. The *cidākāśa*, the pure consciousness extends over the whole universe and includes the other two. The *cittākāśa* is the continuum connected with the *vyavahāra*, behaviour of all living beings. The *bhūtākāśa* is the repository of all the elements like air, light etc. The *manas* is both *cit*, sentient, and *jaḍa*, inert. The three *ākāśas* are relevant only for those who are immersed in ignorance. The *prabuddhas*, the enlightened, know that nothing originates from pure consciousness and nothing is destroyed.

(From *Yogavāsiṣṭha*)

About This Issue

★ PREMA TRANSCENDENTAL is the EDITORIAL for this month. The attainment of *prema*, ecstatic love of God, is the *summum bonum* of Bhakti Yoga.

★ Mama Warerkar, a famous man of letters of Marathi literature, recorded his cherished reminiscences of Swami Vivekananda in touching words. In this article, MAMA WARERKAR AND HIS MEMOIRS OF SWAMI VIVEKANANDA, they are being published for the first time in English. The author, Swami Videhatmananda, is a monk of the Ramakrishna Order, Nagpur, Maharashtra.

★ Prof. Mamata Ray, Lecturer, Department of Economics and Politics at Viswa-Bharati, Santiniketan, in her scholarly essay, THE IMPACT OF FAMILY HERITAGE ON MARGARET NOBLE, shows with ample evidence how the sterling character of Sister Nivedita developed in the crucible of early family experience amidst the Irish national freedom struggle.

★ In their fascinating and enlightening paper ARE WE SUPERSTITIOUS? Profs. A. W. Joshi, Department of Physics, University of Poona, and Alok Kumar, Department of Physics and Astronomy, California State University, expose the myth of infallibility in science, a bias of young progressive modern minds. In doing so, they point out that many of our old beliefs, sometimes erroneously called superstitions, may have sound support in experience. It may be an eye-opener to conditioned minds.

★ PROTO INDO-EUROPEAN AND SANSKRIT-ENGLISH COGNATE WORDS, an erudite short article, is by Swami Mukhyananda, a learned senior monk of the Ramakrishna Order at Belur Math. Though succinct, the article traces some history of the cognate nature of Sanskrit, Avestan, and European languages. The sample list of interesting cognate words shows evidence of how these languages were closely related in the beginning.

We are sorry to note that for last three months our subscribers are having difficulty in receiving their copies of *Prabuddha Bharata*. The magazine is being posted on time but because of inordinate delay by the postal department this difficulty has come up.

We regret any inconvenience caused to our subscribers and request them to bear with us by waiting a little longer before making a complaint of non-receipt of the magazine.

Prema Transcendental

The practice of *vaidhi-bhakti* consists of both positive and negative disciplines, both enjoined and prohibited observances. Its negative aspect refers to the avoidance of offences at the time of worship (*sevāparādha*) and during the chanting and hearing of the Lord's names and glories (*nāmāparādha*). Some of the infractions, among the thirty-two enumerated relating to worship are: non-observance of festivals, non-observance of silence during worship, accepting food before it is consecrated to God, entering the temple or performing worship in an unclean state, and carelessness or inattentiveness at the time of worship. There are ten offences relating to the chanting, singing or listening to the name of the Lord. Among these *nāmāparādhas* are: making irreverent remarks about saintly persons, slighting the spiritual teachers, finding flaws in the scriptures, thinking the praises and excellences of the Divine Name are hyperbole, showing indifference or disrespect to the Divine Name, pandering to the interests of egotism, forgetfulness or lassitude while listening to the Divine Name, and holding the view that the merits derived from charitable acts, and the results produced by chanting of the Divine Name are equal. (i.e. compared to the chanting of the Lord's Name, charitable acts are inferior.)

The Vaiṣṇava teachers, following the teachings of Sri Chaitanya, have rightly regarded the taking of the name of the Lord as very efficacious and consider that the Name and the Deity are inseparable. Thus, Jiva Goswami says: 'The Name Itself is the essence of the Lord' (*Bhagavat-svarūpam eva nāma*). God and His Name are non-

different (*nāma-nāminor abhedah*). The effect of an ordinary word and that of hearing the name of the Transcendental Lord are entirely different. The ordinary word binds and the Divine Name severs worldly bondage. The mundane word links the mind to the world and the Transcendental Name lifts the mind beyond time and space. Therefore, it is said in the *Bhāgavata* that the only potent remedy for *bhava-roga*, the sickness of world-weariness and accumulated sins, is to chant the praises of Hari, the Divine Lord (*Harer-guṇānuvādah*).¹ Krishna, through His Grace, manifests Himself in His Name. In the spiritual realms His name connotes His forms, sports, auspicious attributes and divine nature. A devotee, by uttering the Divine Name, experiences indescribable joy and develops intuitive communion with the Deity. The recitation of God's name is so powerful that the *Bhāgavata* in an apposite analogy states: 'Just as a medicine having high potency is sure to produce its salutary effect, even in one who is unaware of its efficacy, and though taken by chance, so does the Divine Name produce its effect even in the case of one who only casually utters it, unaware of its potency.'² Therefore, in the *bhakti* literature of India the *vācaka* and the *vācya*, the *nāma* and *nāmni*—the name and the Deity are One, and no distinction is made between them. In the *Gītā* the Lord says: 'Among holy offerings, I am the offering of silent repetition.'³

Vaidhi-bhakti matures into a higher state of *bhakti* known as *bhāva-bhakti*. Vaiṣṇava schools recognize three states of devotion: (1) *Sādhana-bhakti*—is realizable through

1. *The Bhāgavata*, 6.2.12.

2. *Ibid.*, 6.2.19.

3. *The Bhagavad Gītā*, X-25.

the senses. In it one feels the attraction of the Lord in the beauty of sounds and imagery. (2) *Bhāva-bhakti*—is inwardly directed affection felt for the Deity. It is emotional sublimation of human sentiment towards Krishna, expressed as in human relationships like those towards a son, a relative, a friend, a servant or a sweet lover. The five attitudes of relation are called *śānta*, *dāsyā*, *mātreya*, *vātsalya* and *mādhurya*, and constitute the five basic aspects of *Bhagavat-prīti*, delight in the Lord. Sometimes these relationships are mixed with one another. Love of God devoid of *one* of these distinctive relationships is called *sāmānya* (general) and is regarded as an inferior type. Among the different classes of devotees the *śānta* and *sāmānya*, being devoid of a sense of intimacy with the Lord, are called *tatastha* (not-active) *bhaktas*, while the *dāsyā-s*, the *mitra-s*, the *vātsalya-s* and the *mādhurya-s*, possessing intense feeling of personal attachment are called *parikara* (higher) *bhaktas*. In this state of *bhāva-bhakti*, a devotee day and night thinks of his Chosen Deity. The world is forgotten. Hunger and thirst recede into background. This *bhakti*, which is pure *sattva* in nature, is described as the first dawn of love. Some of the indications of sprouting of *bhāva* are: an unperturbed state of mind (*kṣānti*), full utilization of time for the growth of devotion (*avagatha-kālatra*), the distaste for worldly enjoyments (*virakti*), absence of ego (*mana-śūnyatā*), and strong conviction that God must be realized (*āśā-bandha*). (3) Finally, *bhāva-bhakti* ripens into *prema* or *prīti*, which is the *summum bonum* of devotion and the goal of human life. It is the last word—the Highest End, above which nothing is comparable. Extinction of all miseries and attainment of self-realization and perpetual bliss is the result of this *premā-bhakti*. It is joy, ever new, fresh and lasting. To Vaiṣṇavas, *karma-yoga* and *jñāna-yoga*, properly pursued, lead to sup-

reme *bhakti*. Jīva Goswami says that the willful restraining of mental modifications is of less use to those who follow the pure way of *bhakti*, because their minds become quiet in the natural course as *bhakti* ripens. Further, he says, 'Knowledge comes through *bhakti* (*bhaktāiva jñānam siddhyati*). Even *vairāgya*, intense renunciation, follows devotion as a matter of course. Ṛṣi Śāṅḍilya says: 'For that reason the liberation of the gopi milkmaids without the help of knowledge has been declared.'⁴

One is blessed with *Premā-bhakti* only when one's devotion to God is mature. Possessed by this divine afflatus a person may behave strangely, breaking social conventions or other norms expected by polite society. The full-blossoming of *Premā-bhakti* in Sri Ramakrishna, his novel way of worship, and strange conduct were ascribed to insanity by ignorant people who knew nothing about the storm of divine consciousness. After the blissful vision of the Universal Mother, Sri Ramakrishna's mode of worship in the Kālī temple underwent a phenomenal change. He put aside all the scriptural injunctions and formalities in his sweet filial relationship with the Mother. On entering the temple he did not bow down or prostrate before the Mother; he ended his formal prayers and reciting of mantras. He went a step further, which seemed nothing short of sacrilege to onlookers. He offered flowers to Mother Kali after touching his feet with them. Sometimes he partook of the food offerings before offering to Her, spent hours talking endearingly with Her or sat motionless gazing at Her. To the child with his Divine Mother, time and space vanished.

'Previously,' Swami Saradananda comments, 'at the time of worship and medita-

4. *The Śāṅḍilya Bhakti Sūtras* (Mysore: Prasaranga, University of Mysore, 1976) Sūtra 14.

अत एव तद्भावात् वल्लवीनाम् ।

tion, he saw a wonderful living presence in the stone image before him. Now he did not see that image at all when he entered the temple ; but saw instead, standing there, the living Mother Herself, All-consciousness, with hands that offered boons and freedom from fear. The Master said, "I put the palm of my hand near Her nostrils and felt that Mother was actually breathing. I observed very closely, but I could never see the shadow of the Mother's divine person on the temple wall in the light of the lamp at night. I heard from my room the jingling sounds of the Mother's anklets, as she went upstairs like a merry little girl. I came out to verify and found that She, with her hair dishevelled, was actually standing on the verandah of the first floor of the temple and was now viewing Calcutta, and next the Ganga."⁵ This was the consummation of *Premā-bhakti* in which a worshipper and the worshipped, the devotee and the Deity are established in intimate relationship. The barriers of awe, fear and separation melt away in that benediction. These souls are not bound in the strait-jacket of social regulations or conventional morality. Forming any conclusion or drawing any comparison of their extraordinary behaviour with the common experience is an exercise in futility. Their exalted spiritual state is unfathomable by the ordinary human mind. As Swami Vivekananda said about Sri Ramakrishna, "...He had infinite moods and phases. Even if you might form an idea of the limits of *Brahmajñāna*, the knowledge of the Absolute, you could not have any idea of the unfathomable depths of his mind! ...He only knows what he himself really was ; his frame only was a human one, but everything else about him was entirely different from that of others."⁶ Yet

5. Swami Saradananda, *The Great Master* (Madras: Sri Ramakrishna Math, Mylapore, 1978) page 166.

6. *The Complete Works of Swami Vivekananda* (Calcutta: Advaita Ashrama, 1989) Vol. VI, page 479 ; Vol. V, page 389.

such states of *Premā-bhakti* are often mis-termed insanity.

The celestial sight of Sri Ramakrishna's worship was described by Hriday (his nephew) who was a witness to many enthralling scenes:

Whenever one entered the temple, a thrill would be felt, specially when my uncle was worshipping, as though there were a living presence there. I could never resist the temptation of watching him. His strange manner of worship filled me with wonder and reverence, at the same time I often questioned his sanity, for his actions were contrary to the injunctions of the shastras.

Regarding the extraordinary behaviour of his uncle, he further added:

I noticed that my uncle, taking flowers and Bael leaves in his hand, touched his own head, chest, in fact, the whole body, including the feet, with them and then offered them at the feet of Kali. At other times, with eyes and chest flushed, like a drunkard he would move with tottering steps from his seat to the throne of the Goddess, touch her chin as a sign of endearment, and begin to sing, or talk, joke, laugh, or even dance, taking the image by the hand! Sometimes he would approach the throne with a morsel of food in his hand and putting it to Her lips entreat Her to eat. ... He would eat a portion of it and put the remainder to the mouth of the goddess.⁷

Saints everywhere, overpowered by this *Premā-bhakti*, have stunned ordinary people by their strange way of life. But to them this world is like an unsubstantial shadow or a hollow dream. For example, Akka (sister) Mahādevi, a 12th century mystic of Karnataka, considered herself as the bride of Lord Śiva. At the age of sixteen she threw away even that last vestige of worldly bondage—clothing. She roamed about in the God-intoxicated state naked, singing:

Siva, the beautiful, immortal is my
husband.

Take these mortal husbands that decay
and consign them to the flames!

7. *The Life of Sri Ramakrishna* (Calcutta: Advaita Ashrama, 1977) pages 58-59

Another mystical lark of Kashmir, Lall-eśwari, who lived in the 14th century, roamed singing and dancing about the country nude or semi-nude in divine ecstasy. She communicates her spiritual experiences in her translucent verses, known as 'Vakhs'. She sings:

Attaching to my body, I lost You clear
and sure ;
My day was spent searching for You!
Beholding You within me,
I brought myself and Śiva together in a
thrill of joy!
O Nārāyana, the All is only Thou.
Only Thee, Nārāyaṇa, in all I see,
The sports Thou showest now
Are but clear illusions unto me.

There are saints from many parts of the world who have experienced similar heights of *Premā-bhakti*. Theresa of Avila, Rabia, and Rumī of Sufism, John of the Cross, Francis of Assisi and Ruysbroeck, to name a few from that galaxy of luminaries. Each was a fully-blossomed flower with matchless colour, fragrance and uniqueness.

Madhuram, the sweet mood, is the most prominent attitude prevailing among the Bengal school of Vaiṣṇava devotees. Their worship of the conjoined images of Radha and Krishna represent *śakti* and *śaktimat*. No doubt *madhura* also ranked high in the systems of Vallabha and Nimbārka, who unlike Sri Rāmānuja and Madhvācārya, conceived of Brahman and Its Energy, not as Nārāyana and Lakṣmī, but as Krishna and Radha. As the Lord is *Saccidānanda*, His inseparable *swarūpa-śakti* has three attributes corresponding to the three aspects. In the *Sat*-aspect it is *sandhinī śakti*, in the *Cit*-aspect it is *samvit-śakti*, and in the *ānanda*-aspect it is *hlādinī-śakti*. The latter *hlādinī-śakti* is the Principal or Primal Energy. It includes the other two. Radha is the *hlādinī-śakti* of Krishna. She is the

embodied form of that infinite Divine Energy and is inseparable from Krishna. The divine sport of Radha and Krishna is vested in human terms, yet no ordinary human being can take part in it or perceive it. Radha's companions, the gopis of Vrindāvan, are *nityasiddha-sakhis*, or perfect souls. In the *Rāsa-līlā*, Krishna is not a man and Radha is not a woman. There is no duality. Sri Chaitanya is worshipped as the incarnation of both Krishna and Radha in One. He combines in Himself the attributes of *Rasa-rāja* and *Rādhā-mahābhāva*. *Rasa* means divine love.⁸ In the *Taittirīya Upaniṣad* it is also stated: 'Having obtained *rasa*, a devotee becomes full of bliss.'⁹

After the completion of his t̄antric sadhana, Sri Ramakrishna took up the different modes of Vaiṣṇava discipline. He once said: 'A little of the mind is attached to the body. It wants to enjoy the love of God and the company of the devotees....Why should I produce only a monotone? I want to call on God through all the moods.'¹⁰ With characteristic zeal he followed *dāsyabhāva*, in the footsteps of Hanumana and had the vision of Sītā. Sometimes he also practised the *sakhya-bhāva*, a friend towards divinity. He undertook the practice of *vātsalya*, forming a relationship with God as a mother with her child. Possessed of the idea that he was a woman, not a man, his whole nature underwent a strange transformation. His speech and gestures assumed feminine grace and beauty and women accepted him as one of themselves. While worshipping God he showered motherly affection on Child-Rāma, who was brought

8. *The Sāṅḍilya Bhakti Sūtras*, Sūtra-6

रसशब्दाच्च रागः ।

9. *Taittirīya Upaniṣad*, 2.7.

रसं ह्येवायं लब्ध्वानन्दी भवति ।

10. *The Gospel of Sri Ramakrishna* (Madras: Ramakrishna Math, Mylapore, 1985) pp. 391, 1009-10.

to Dakshineswar by the saint Jaṭādhāri. In Sri Rāma, Sri Ramakrishna saw the Pure Brahman immanent in the universe, yet transcendental. The highest rung in the ladder of *bhakti* is *madhura-bhāva*—the sweet relationship of lover and the Beloved. When Sri Ramakrishna plunged into this form of *mahā-bhāva*, assuming the attitude of Radha, he decked himself in an outfit of women's clothing. The intense love, the throes of the Gopis for the vision of Krishna, completely seized him. So thoroughly was he absorbed in that mental attitude that even his nearest relatives failed to recognize him among a group of women. The Bhairavi Brahmani also said that she often mistook him, at the time of his plucking flowers, for Sri Radha.

Within a short period of the onset of this sadhana of *madhura-bhāva*, Radha revealed Herself to Sri Ramakrishna and as she came near, entered and vanished into his body. Later he described the celestial beauty of Sri Radha. The colour of her complexion was light-yellow, he said. In this *Rādhā-bhāva*, Sri Ramakrishna spent day and night, longing, sometimes weeping intensely for Sri Krishna. His yearning became so intense that drops of blood oozed painfully from the pores of his skin, just as the onset of *mahā-bhāva* is described in the scriptures. Shortly, his *Premā-bhakti* found its fruition. Sri Krishna also revealed Himself, first as an objective vision and then, like Radha, merging into his own body. For a few months he remained in the state of continual ecstasy, forgetting even his own identity, looking

upon himself as Krishna. Showing a blue flower one day to his disciples, he said such was the shade of Sri Krishna's complexion.

Divine grace plays a more prominent role than the self-effort of man. The *prāgabhāva* (non-existence of a thing before its production) of knowledge of the Bhagavat (Lord) in the human is without beginning, but not without an end, since it can be removed by the Lord's grace. This absence of Knowledge of God is of a temporary nature, and it comes to an end as soon as the devotee attains that Knowledge by means of Divine Grace. The Lord has endowed the *jīvas* with this inherent capacity to liberate themselves. Therefore, this *prāgabhāva* is different from 'non-existence after destruction' (*dhvaṁsābhāva*) and absolute non-existence (*atyantābhāva*). Christianity also accepts that nothing man does can procure God's love. No good works can be said to merit God's love or the descent of His Grace. In both Christianity and the Bengal Vaiṣṇavism of Sri Chaitanya, 'bridal mysticism' assumes the dominant theme in the grand symphony of love of God. The rapturous melody of St. John of the Cross sums up that beatific vision:

He held me to His Bosom,
And taught me a sweet science ;
At once I gave my all—keeping nothing,
And promised to be His bride.
I gave my soul to Him and all else besides,
No flocks for me to tend,
Nor any other trade,
And love, my only ministry.

Mama Warerkar and His Memoirs of Swami Vivekananda

SWAMI VIDEHATMANANDA *

The well-known Marathi writer and dramatist Bhargavram or Mama Warerkar, was born in Chiplun (Maharashtra) on 27th April, 1883 where his father was serving in the local post office. The boy had no aptitude for studies, and as his family was poor, he was compelled to earn money at the tender age of fourteen. In the beginning of 1898 he got a job in the civil hospital at Ratnagiri. Here he came into contact with Dr. Kirtikar. From his childhood, though not good in studies, he was keenly interested in reading dramas, as well as in seeing them performed on the stage. He got the opportunity to read many English stories, novels and dramas. He served in the post office from 1899 to 1919. On 27th July, 1927 radio was first introduced in India. Sri Warerkar was connected with radio in one way or another from its very inception up till his death.

Mama Warerkar has to his credit abundant creative literature in the Marathi language. He wrote his first drama in 1908 and first novel in 1911. Thereafter, during a span of nearly fifty years he wrote more than thirty-six dramas, twenty-six novels, collections of short stories including many detective stories, his autobiography in four volumes, and scores of articles. His contribution by way of translations into Marathi also is very notable. These number several scores of works, from English and from the novels and stories of Saratchandra Chatterjee, Bankimchandra, Rabindranath Tagore and Prabhatkumar Mukhopadhyaya. In all, he has written about one hundred and seventy-six highly appreciated works in Marathi.

Besides he was for some years the editor of the magazine *Duniya*. Some of his books have been circulated throughout India in many of the regional languages.

Mama Warerkar was regarded as a trend-setter in the field of drama. Before him, Marathi dramas were mostly based on mythological and historical themes. Mama Warerkar departed from the old themes and dealt with contemporary social problems. It is due to this that the veteran Marathi litterateur, Acharya Atre, has called the period 1920-30 'the Gadkari-Warerkar age' of Marathi drama. Shri V. D. Sathe, in his *History of Marathi Drama (Marathi Natyakatha)* has remarked that Marathi literature has not produced any dramatist of the stature of Mr. B. V. Warerkar writing popular social, religious or political dramas based on contemporary problems.

In 1956 the Government of India conferred on Mama Warerkar the title of 'Padma-bhushan' and nominated him as an Honourable Member of the Rajyasabha. This great literary figure breathed his last on 23rd September 1964 in New Delhi.

Very few know that this outstanding literary genius of Maharashtra owes his literary inspiration almost wholly to Swami Vivekananda. Indeed, Swami Vivekananda's influence made him what he was. During the year-long celebration of Swamiji's Birth Centenary in 1963, Warerkar's reminiscences of Swami Vivekananda were broadcast over All-India-Radio. These memoirs were published in the Hindi magazines 'Tripathagā' and 'Kādambini' in May 1963 and give an incisive account of Swamiji's visit to Almora in 1898. The following translated from Hindi describes some of Shri Warerkar's invaluable memories:

* Translated by Prof. S. W. Nande, Amaravati, Maharashtra.

In my childhood when anyone asked me as to which career I would choose, I used to say that I would prefer to become a *sādhu* or monk than to become a big officer. A few *sādhus* visited our house often. From my early age I had the good fortune to come into close contact with those *sannyāsins*, and I became very deeply attached to them. This attachment never left me throughout my life.

I was one of the candidates chosen for a seat in Gaudapādācārya's Math. Swami Atmananda Saraswatī of that monastery was very fond of me. I am a disciple of Bhavanibhatt Sukhthankar of the Math. Because of my mother's dissuasions I could not become a *sannyāsi* and had to return home disappointed.

Later I got a job in the Post and Telegraph Department. Though I was unwilling to marry, my father had given his word to somebody for my marriage with his daughter and so I had to marry to keep my father's promise. That was my greatest misfortune. I took leave on medical grounds and left home. I went to Nepal with a friend's brother who was a priest in the temple of Paśupatināth-Śiva. But there something happened which forced me to leave Nepal. At this time I came in contact with two of Swami Vivekananda's brother-monks—Swamis Turiyananda and Swarupananda.*

Swamiji was in Almora then (May-June, 1898). I took a train at Patna and reached Almora. My long cherished desire was fulfilled. When my head touched Swamiji's lotus feet, I was overwhelmed with joy. He raised me up by his hands and enquired about me. I told my name and all about my occupation. But I did not disclose to him the real purpose of my visit, (i.e. embracing *sannyāsa*). In the

presence of Swamiji I was so overpowered that not a word came out of my mouth. Swamiji also remained silent and did not ask me anything more.

I began to spend my days among the *sannyāsins* of the Almora Āśrama without the least worry of the world. There were Swamis Turiyananda, Niranjanananda, Sadananda and Swarupananda. Besides these Mahātmās, there were four foreign lady-disciples of Swamiji. The Rājāh of Khetri had also come to Almora for *darśan* of Swamiji. Margaret Noble (Sister Nivedita) was also there. Swamiji used to tell these foreign disciples interesting stories of ancient Indian history and mythology in his fluent and lucid style, which kept his audience spell-bound. The listeners were, as it were, transported into the past. They used to forget the present and live in the joyous past. All these stories were known to me. From my very childhood my father regularly taught me the *Mahābhārata*, the *Rāmāyaṇa*, the *Bhāgavata*, the *Rāmviṇay*, the *Pāṇḍava Pratāp* and others, so I was well acquainted with these stories. But to hear them from Swamiji was an entirely new experience for me. I began to live like a hermit among the other hermits of the Āśrama. It was here that I became first acquainted with the Bengali language.

Swamiji used to speak in English with his foreign disciples, but with his brother-monks in Bengali. Gradually I picked up Bengali and sang Bengali devotional songs in chorus. Swamiji was endowed with an extraordinary voice which was high-pitched like that of the Marathi actor, Sri Bhaurao Kolhatkar. But it was unique in that it also reached the lowest pitch. I have listened to many an Indian classical singer but in none could I find the magic of Swamiji's voice. There was another unique feature in Swamiji's musical talent. He used to play on tabla with equal ease

* Swami Swarupananda was a disciple of Swami Vivekananda.—Ed.

and skill, and in comparison with him, modern expert tabla players appear to be mere children. 'Ravindra Saṅgīt' was not prevalent in Bengal in those days. *Khayāl*, *Dhrupad* and *Thumari* styles were more common, but *Tappā* was given utmost importance. Devotional songs in praise of Bhagavān Śrī Rāmachandra were also very popular. Swamiji's favourite devotional song was Rāmprasād's '*Āmi ki dukhere darāi...*'. All the monks used to get up early in the morning and sit for meditation. I too joined them. But I enjoyed looking at Swamiji's impressive meditative posture more than trying to meditate myself. Swamiji used to remain immersed in meditation for about two hours at a stretch. All the other monks used to stay until Swamiji got up from his meditation.

I admired their meditation but was not fully absorbed in it, for I was eager to get my personal problems solved by Swamiji. But I got no opportunity to be alone with him. One day after meditation Swamiji came out of the room all alone. Though I followed him silently, he noticed my presence and turned round towards me. Patting me on the back affectionately, he asked me in English, 'Well, my boy, what do you want?' I replied, 'I want to become a sannyāsin.' I had read the reports of the Parliament of Religions held at Chicago in newspapers and since then I had a strong desire to see Swamiji. I had been restless to meet this spiritual colossus, and now that auspicious moment arrived. I bowed low, touched his feet and prayed him to initiate me into sannyāsa. We sat under a tree. He asked me the details of my life. Having learnt that I was married, he placed his hand on my head and mildly said, 'My boy, to be a sannyāsin is a rare luck, but that is not in your lot. You are married and you cannot be a sannyāsi now.'

His words came to me as a bolt from the

blue. My dream was shattered to pieces. I burst into sobs. Swamiji at once pressed me against his breast and consoled me saying, 'Sannyāsa is writ large on your forehead. You will get the opportunity to become a sannyāsi in your youth. I see it clearly that you will do great deeds. Now go home and join your service. But you are not for service. Yours is a free, liberated soul. I am going to Kashmir and after returning from there, shall go on a foreign tour. When I come back from abroad meet me at Calcutta. Don't forget. Else you will repent.' I returned home dejected.

After my father's demise I went to Belur Math towards the end of 1901. Again I felt a keen desire to renounce the world. Swamiji was then talking to a group of Santhāl labourers who were regarded as untouchables. Swamiji served food to them with his own hands but without curds or salt which they were by custom forbidden to eat from others' hands. Swamiji remarked, 'Today Nārāyaṇa (God Incarnate) Himself has accepted my offering through these people.' He advised the monks to give up their ceremonial worship (in the temple) and dedicate themselves to the worship of the poor as Nārāyaṇa. He said that these children of God had become the victims of the caste Hindus who always kept them at an arm's length as untouchables.

At that time Swamiji was not keeping well. Once again I expressed my keen desire to embrace sannyāsa. He told me, 'My boy, you need not become a sannyāsi, regard this Ramakrishna Āśrama as your home. Rakhāl Maharaj (Swami Brahmananda) will initiate you. Take this as your initiation into sannyāsa.' Introducing me to Girish Ghosh, he asked him to treat me as his son. He told Girish, 'This boy is born to carry on your dramatic tradition. I entrust him to you. Let him be

the Hindus, thousands of Pariahs in Madras are turning Christians. Don't think this is simply due to the pinch of hunger; it is because they do not get any sympathy from us. Day and night we are calling out to them, "Don't touch us! Don't touch us!" (Vol. VII, pp. 245-46) Mama Warerkar has put similar words into the mouth of Śaṅkarācārya. This Śaṅkarācārya is none but Swami Vivekananda in disguise. The second act in the drama depicts the miserable condition of the poor and downtrodden when high floods ravaged the southern parts of the country. The following dialogue is interesting to note:

SUBRAMANYAM (a disciple of Śaṅkarācārya)— 'What should we do now?'

SANKARACARYA— 'Save the poor who have been carried away by the floods. Spend all the money that we have received from the rich as *Guru-dakṣiṇā* to feed the poor. Even empty the safe.'

SUBRAMANYAM— 'Even if we empty the safe, we cannot stand comparison with the missionaries.'

SANKARACARYA— 'Then sell this crown of mine, this costly garment (takes off the garment), these silver slippers, this throne, this elephant and these horses with all their trappings. Why are you startled? Sell even the golden and silver idols of the shrine. Let there be no idol here except that of Sri Śāradāmbā! If, even after this, there is paucity of funds sell this Math and collect money by selling all these costly marble stones. When the whole world is wallowing in poverty and millions cannot get a morsel of food, which heaven can Śaṅkarācārya attain with all these paraphernalia of money, marble and gold?'

These utterances clearly reflect Swamiji's thoughts. Warerkar says in his autobiography, 'After Śaṅkarācārya had renounced his all I wanted to dress him like Swamiji. And for this purpose I went to Belur Math

and got the measurements of Swamiji's dress preserved there, and got a set of garments prepared by a Bengali tailor. I liked the dress very much.'

The last act of the drama ends with the foundation of 'Śaṅkara Mission' dedicated to the service of humanity. The wealthy people of different religions in the city of Bombay send donations of lakhs of rupees for the uplift of the poor and downtrodden. Śaṅkarācārya's Math has undergone a complete change. All the valuables in the Math have been sold off and ritualistic worship dispensed with. Worship of the formless Brahman and service to humanity have been introduced. As a result of the change, thousands of converted Christians apply to the authorities expressing their desire to come back into the Hindu fold. Śaṅkarācārya's last words are, 'Devdatta, had I married and become a householder, I would have been bound by narrow family ties and attachments. Now the whole of humanity is my family and it is because of our following the principle of universal love. A householder's family is extremely circumscribed and self-centred by contrast.'

Lalitkalādarśa, a dramatic company of Bombay staged the drama for the first time in the Victoria Theatre on 25th September 1919. Lokmānya Tilak and his colleagues were the honoured guests on the occasion. All the actors in the drama paid their respects to him one-by-one before the play started. Lokmānya Tilak delivered a short speech before the third act began. Although there were only about two hundred invitees, yet they could collect in those days about rupees eight hundred and fifty from the sale of tickets. The whole amount was donated to Anātha-Vidyārthi Griha (an orphanage) of Pune through Lokmānya Tilak. The renowned musician Ramkrishna Buwa Waze, who had learned music from Swamiji and looked upon him as his guru, was the music director of the play.

Impact of Family Heritage on Margaret Noble

MAMATA RAY

The purpose of the present article is to show how the early spirituo-political socialization that Margaret Elizabeth Noble had received in her family inevitably prepared her for the full-fledged role she was to play later as Sister Nivedita in India.

A brief introduction regarding Margaret Noble's family background is necessary to indicate the kind of heritage she was born to. The Nobles had originally belonged to Scotland but had migrated to Ireland in the fourteenth century. Margaret Elizabeth Noble was born on October 28, 1867 at Dunganon in the County Tyrone of Ireland as the eldest daughter of Samuel Noble and Mary Isabel Hamilton. Her grandfather John Noble was a minister of the Wesleyan Church in Northern Ireland. But he was no routine preacher of Christianity. Religion did not keep him insulated from politics. On the contrary, politics got inextricably intermingled with religion in John Noble's scheme of things. Though a Protestant, he did not hesitate to side with the Roman Catholics of his country in the cause of Ireland's freedom from British rule.

As Ireland cried out for liberty, rebelling against the tyranny of the English rulers, the British met the Irish nationalist upsurge of the nineteenth century with repression. The rebels against the English Crown were sought out to be punished by an Act forbidding them from purchasing land, engaging in business transactions, serving on juries, teaching in schools, carrying arms, riding on horseback and even denying them burial in consecrated ground.¹

John Noble would not take such an in-

famous Edict lying down. To rouse the Irish in indignation against the English, he would make the Irish patriots recite the notorious Edict every evening after they had said the Lord's Prayer.² The Irish indignation against the tyranny of repression found its logical culmination in the formation of the *Fenian National Militia* and the *Home Rule* and *Land League* movements.³ John Noble who took upon himself the task of imbuing Irishman with the spirit of nationalism must have contributed his mite to such movements, braving in the process the rough edges of the British rule in Ireland.

Could the British repression check the tides of revolution against the English Crown? Meetings of patriots were broken up and some of them were even hanged, '...but other patriots took their places. Meanwhile, Noble continued the fight relentlessly after his own fashion, serving both God and his war-torn country.'⁴

If John Noble had acquired almost legendary fame throughout Ireland in the first half of the nineteenth century, Mr. Hamilton, the maternal grandfather of Margaret Noble, was not far behind him. He too had participated in the Home Rule Movement seeking to set Ireland free and was imprisoned no less than ten times for such participation in the freedom struggle.⁵ He had willingly taken upon himself the risk of distributing among the Irish the copies of a clandestine paper entitled 'The Nation'. It is a measure of Nivedita's passionate admiration for

2. *Ibid.*

3. Pravrajika Atmaprana, *Sister Nivedita of Ramakrishna-Vivekananda* (Calcutta: Sister Nivedita Girls' School, 1977) p. 1.

4. Reymond, p. 10.

5. Atmaprana, p. 2.

1. Lizelle Reymond, *The Dedicated* (Madras: Samata Books, 1985) p. 9.

grandfather Hamilton that she said of him in her after years that he was among her first teachers '...to show me what a nation was'.⁶ Her first acquaintance with the lives of Irish patriots, and with the memoirs and stories of great revolutionists, came from books which grandfather Hamilton inspired her to read.

The ancestor with whom Margaret Noble had identified herself most closely was her grandmother Margaret Elizabeth Nealus, who after her marriage to Margaret's grandfather John Noble, became Margaret Elizabeth Noble. Grandmother Noble had not only lent her name to her granddaughter but had also brought her up as a child in Ireland as the little Margaret's parents were away in England till she was four years old. Margaret was heart-broken when the time came for parting with her grandmother, as '...she was always happy with her grandmother who taught her to read from the family Bible, and never tired [of] reciting her favourite Psalms'.⁷ Being brought up by Grandmother Noble as a child, Margaret always felt closer to her than to her own mother. Writing later of her family history, she characterized her grandmother in the following terms: '...She was a girl who laughed at danger. When she was still a child her father made her sentry at a cross-roads one day while he helped a group of patriots to escape. She wasn't the least bit afraid.'⁸ As one who received her first lessons in nationalism and fearlessness from an affectionate grandmother, Margaret was immensely impressed by her grandmother, so much so that she signed some of her first articles 'Elizabeth Nealus', after the name of her grandmother.

Samuel Noble, the father of Margaret Noble, was made in the mould of his father

John Noble. He too was a Congregational minister and an Irish nationalist. Like his father, he too '...dreamed of performing heroic exploits to God and to set Ireland free'.⁹

When Samuel Noble died,¹⁰ Nivedita, the eldest of the three children¹¹ of Samuel and Mary Noble, was only ten years old. But even at that tender age, realizing that her father's health was failing, she became his constant companion. She would accompany him whenever he would go to preach. So inspired and impressed she was by her father's preaching that she would imitate later his manner of preaching and even his gestures. 'She had been very close to him, and had perhaps inherited his strong sense of independence of thought and integrity. There was much in his nature, especially in his care for the poor, that drew Margaret to him...Like her father she remained independent in thought as well as action, even as a child.'¹² The death of her father was indeed a heavy blow to Margaret. It represented to her the parting of a friend from life—a friend who in his dealing with his family had 'set an example of perfect self-abnegation',¹³ had always encouraged her to spread her wings and had expressed the hope in his last farewell to his wife that Margaret 'will do great things'.¹⁴

This brief review of the family background of Margaret Noble is intended to show that the kind of heritage the Nobles, Nealus, and Hamiltons had established for her was

9. *Ibid.*, p. 10.

10. Samuel Noble, who had settled himself in England, was a Congregational minister, first, at a church in Oldham and later at Great Torrington where he died of tuberculosis at the age of thirty-four in 1877.

11. Margaret had a sister by the name of Mary and a brother by the name of Richmond.

12. Barbara Foxe, *Long Journey Home* (London: Rider and Company, 1975) p. 14.

13. Reymond, p. 12.

14. *Ibid.*, p. 14.

6. Reymond, p. 19.

7. *Ibid.*, pp. 11-12.

8. *Ibid.*, p. 26.

one of idealism and independence, one of patriotic zeal and religious ardour, one of quest for freedom to be realized in the self-abnegating service to God, country and fellow human beings. It is in the context of Margaret Noble's imbibing from her ancestors the spirit of longing for religion and the spirit of freedom ('the Irish fighting spirit which grew stronger with the passing years')¹⁵ and the intensity of her longing for both of these things that her subsequent 'initiation into the spirit of Indian heritage coupled with active participation in this country's struggle for freedom'¹⁶ has to be understood.

Margaret Noble's most fundamental spirituo-political orientations flowed from her family background. She learned from her grandparents and parents. She acquired her fighting spirit and the spirit of service from them and in seeking to free a subjugated people from the bondage of a foreign master she was identifying herself with them.

The spirituo-political socialization that accrued to Margaret Noble in her family environment during her childhood through such models as acquisition, identification and inter-personal transfer could not, how-

ever, be independent of the existing cognitive structure of Margaret Noble as a child. Her personal characteristics and intelligence constituted an important variable, conditioning and shaping the socialization acquired through familial avenues. As a child she was 'proud and stubborn by nature'¹⁷ and loved 'to invent stories with herself as the heroine'.¹⁸ This shows that she had hero's will with pride and stubbornness as the component elements of such will. The hero had a mother's heart as well. In fact, Margaret became like a mother to her ailing father during the last days of his life. 'As her father's illness advanced, and he withdrew more within himself, Margaret left her games and outings so that she might spend the time with him.'¹⁹

To sum up, apart from the family tradition which Margaret Noble had completely imbibed she showed evidence of those qualities in her childhood which, being further nurtured by Swami Vivekananda in due course, were inevitably to stand her in good stead in her mission to India—a country to which she was to be in the fulness of time 'the Mother, Maid and Friend in one'.²⁰

17. Reymond, p. 13.

18. *Ibid.*

19. *Ibid.*

20. This was how her master, Swami Vivekananda wanted Nivedita to fulfil herself in India.

15. Barbara Foxe, p. 14.

16. Basudha Chakravarty, *Sister Nivedita* (New Delhi: National Book Trust, 1975) p. 1.

Q. "Is the world unreal?"

SRI RAMAKRISHNA—"Yes, it is unreal as long as one has not realized God. Through ignorance man forgets God and speaks always of 'I' and 'mine'. He sinks down and maya robs him of his knowledge to such an extent that he cannot find the way of escape though such a way exists."

—*The Gospel of Sri Ramakrishna*

Are We Superstitious ?

A. W. JOSHI AND ALOK KUMAR

During the course of many recent centuries, when India saw the influx of several outside cultures, foreign intellectuals often rose to criticize India's religion and culture, hoping to conquer and replace it with their own. One of their most often heard criticisms was a general one—that India was a country of superstitions. But what were they really objecting to? What is a superstition? Are faith and beliefs all to be classed together as something dark and sinister? How can people know what is right and know the truth or falsehood of ever-recurring claims of progress and superiority? Are superstitions really a major affliction of Indian society? Indian intellectuals have often been seen to fall in line with their Western counterparts and without thinking deeply over the above mentioned basic issues, opine that society is thus afflicted. In the present article, we hope to discuss the above questions. In the same context, we also hope to discuss the limitations of modern science and its research methodology.

Proof and faith

Pure mathematical statements can have pure logical proofs. Even school children know how theorems in algebra or geometry can be proved step by step by means of basic principles of mathematics and logic. But next to this, if we consider statements in fields like physics, biology and others, the nature of the proof changes. It contains a smaller proportion of pure logic and a good deal of intuition and inductive logic. Even beyond this, in fields like geology, astrophysics, psychology, economics, it is seen that pure logic is of very little help. Statements and hypotheses in these fields exhibit free flights of fancy. Several critics

have admitted that Aristotelian logic is quite inadequate to deal with such cases, and that Indian logic is much wider and better equipped.¹

Often one comes across news that 'certain scientists have performed certain experiments and have scientifically proved that such and such a thing leads to such and such effect'. It is a moot question as to how far a layman can safely accept such statements. More often than not, in the fields of medicine, psychology and others, these claims are based on shallow research. What does it really mean to say that a certain statement has been *scientifically established*? A scientist starts with a certain hypothesis and conducts a survey or an experiment on it. How wide a field he chooses for his survey or experiment depends on the scientist's skill. Then one has to see how much statistical correlation there is between the results of the survey and the assumed hypothesis. Then one decides whether the hypothesis is established firmly or not. Scientists may of course differ in what may be called the significant correlation upon which the hypothesis can be declared established. This level of significance also differs from hypothesis to hypothesis. Some of these points are discussed in this article, and it is shown that this method of research is highly liable to error.²

Let us consider the following statements—1) Smoking causes cancer; 2) Mother's milk is the best milk for a baby; 3) Removal of tonsil glands helps a child to grow heal-

1. D. S. Kothari, "Reality and Physics: Some Aspects", *Journal of Physics Education*, Vol. 6 (January 1979), No. 2, pp. 1-6.

2. A. W. Joshi and Alok Kumar, "The Nature of Proof and Faith", *New Quest*, Vol. 40, (July-August 1983), pp. 227-230.

thier ; 4) The modern *homo-sapiens* began to walk upright on this earth about 40,000 years ago ; 5) An elementary particle, the neutrino, can cross the entire thickness of the earth without interacting with any other particle ; (6) If a pregnant woman goes out during an eclipse, her child is likely to be born deformed ; (7) Carry a baby in your left arm for safety's sake. (8) Early to bed and early to rise, makes a man healthy wealthy and wise ; (9) Rising prices are an indication of progress in a developing country ; (10) Sleeping with feet towards south and head north results in weakness.

The reader will notice that the above list contains the following types of statements —(a) Some are considered valid today ; (b) Some were in vogue earlier, but now are proved wrong ; (c) Some statements are held to be true in some regions but not in others ; (d) Some are considered no more than superstitions.

How does one prove or disprove the wisdom of any one of these* statements ? How does one decide which are 'scientific' and which are superstitious ? As mentioned above, modern research often resorts to statistical survey and analysis. An investigator performs his surveys over a sample population and draws certain conclusions. In reality their validity depends on several parameters, such as how broad the sample was, whether the available data were analysed properly or not, whether several other causes giving the same result were taken into account or not, whether other factors were minimised or at least kept constant throughout the sample or not, etc. For example, if one wishes to investigate the connection between smoking and cancer, to begin with, one would have to choose as wide a sample as possible. Then one would have to check all other cases of cancer, and try to minimize them or to keep them constant in the sample. It is obvious that this is not an easy job. There may be, nay, always be, several lacuna

in this type of investigation.

In Indian culture, and in fact in every culture, several beliefs arise as a result of thousands of years of national experience. If a modern scientist wishes to investigate one of these beliefs, it could certainly be done by means of an experiment or survey. But the result of such a survey would largely depend on the surveyor's skill. The scientist may not notice several hidden causes or parameters at the time of his investigation. Perhaps some parameters would never surface though producing their visible effects. Therefore, the result of such a survey can at best be said to be valid for here-and-now. If another scientist is investigating the same hypothesis at another place, one cannot be sure that he will arrive at the same conclusion. Or if the same survey is conducted a decade later, the result may not be the same. This is why 'truths' of science are constantly changing. To an impartial distant observer, it may all look like child's play, shallow and superficial.

Consider the sixth statement in our list which states that if a pregnant woman goes out during an eclipse, her child is likely to be born deformed. If one wants to examine the truth or untruth of this, according to modern methods, one would have to conduct a survey of pregnant women during eclipses and note different stages of the pregnancies. One would have to note which women had stayed indoors and which had wandered outside. Then one would have to note the incidence of deformed births in due course. One would then see whether there was any difference in the birth rate of deformed children in the two groups of women. Then one would have to decide whether the difference observed was significant or just due to chance or probability. Finally one would have to show the level of significance, that is how much difference there has to be before one can say that the statement is justified.

But the most basic question is how much faith one can put in this type of survey itself. One would have to examine the proportion of poor women living in unhealthy areas to healthy one living in good areas and so on. The number of parameters affecting the data to be collected might make the survey impracticable. If one person found a negative result in the survey today, another person could find a positive result tomorrow. Or if the conclusions drawn were positive yesterday, a more illumined surveyor of today might come to a conclusion like this: '...Last year Dr. X made a survey and found that the statement under question was verified. However, the learned Dr. X did not take into account how many cinema films the women saw during their pregnancies. The present survey makes note of this parameter also. Also, Dr. X surveyed only a sample population of 500 women, while we have surveyed 2,500. From our analysis the rate of birth defects is more highly related to theatre-going than to eclipses!'

A recent actual survey is worth mentioning: A few wise men of a well-known university of North India thought to conduct a survey examining the old saying of Franklin: 'Early to bed and early to rise makes a man healthy, wealthy and wise.'—number eight in our list. They surveyed a sample population noting the time they went to bed and got up, their ages, health, social status and so on. One can easily see the shallowness and frivolity of such a survey. There are several very difficult measurements that would have to be taken: How would one measure wisdom? How would one determine how much of health, wealth and wisdom came as a result of keeping early timings, and how much was due to other causes? Even so, our wise men boldly arrived at the conclusion that 'there was no relation between health, wealth and wisdom, and the timings which the subjects of the survey followed'. So our 'ancient saying',

having taken firm root in our culture, has after all turned out to be a superstition! Thus it has been found that in such surveys, the investigators or scientists also cannot become fully objective. They often bring out the conclusions which they already believe to be true.

Let us turn to tobacco smoking. The statement that 'smoking causes cancer', does not mean that every smoker suffers from cancer. To begin with, the investigator must determine how many people of thousand may be expected to suffer from cancer due to smoking and due to other causes in a random sampling of the population. If even five persons out of one thousand suffer from cancer due to smoking, then smoking will be considered harmful. When, in fact, smoking is found to cause other ill effects also, then it is understood why several governments have passed legislation to warn the smoker of the ill effects of smoking. Similarly, the statement that exposure to eclipses causes birth deformities does not mean that every pregnant woman who goes out during an eclipse will give birth to a child with physical defects. The 'level of significance' of difference between the survey sample and the control group in such cases is quite low, not ten or twenty percent, but even if five out of a thousand were known to have been adversely affected by exposure to eclipses, then the common belief would be justified. Is it not possible that our ancestors may have realized the truth of this by experience or by other means and may have given out just such a warning? Once decided, it was necessary to make people of all strata follow the norm. Besides the educated and literate persons, there were also the illiterate rural people. For a vast majority of the population it was often enough to say that 'it has been told by the sages' and not necessary to add that 'it has been scientifically proved'. Our culture and upbringing was such that after hearing 'our

ancestors said so', nobody wanted to ask: 'but what is the proof?' This was the system. Just for this it would not be fair to say that every belief was a superstition.

Faith in science and religion

However, it is not true that modern research in every branch of knowledge is of the nature described above. For example, in physics and chemistry, research is based on laboratory experiments, and surveys do not find much place in them. Then in fields like agriculture, geology and medicine, research is of a mixed nature, involving both surveys and experiments. Finally, we have some areas such as psychology, meteorology, education, economics, sociology and others where there is very little or no possibility of independent experiments, and research is mainly or wholly based on surveys.

Physics has found a very high place of pride among all sciences because in physics it is possible to conduct very minute measurements and experiments under controlled conditions. When a scientist has found some results after performing a certain series of experiments, it is expected that any other scientist should be able to get the same results after similar experiments. Only then does the result find an accepted place in physics, not otherwise.³ It is possible for different scientists to conduct similar experiments in different places. In the fields of education and sociology it is hardly possible to do so, not to talk of expecting similar results. It is, therefore, claimed that there is no place for faith in science as there is in religion. Science is based only on experiments and observation of discrete objective data, and is untouched by personal beliefs. But we shall now try to show that this idea of modern scientists is wrong. Even an exact

science like physics has scope for faith.

Several deep-rooted and fundamental concepts have arisen in physics during the last fifty or sixty years. Several new elementary particles have been discovered with extremely curious properties. Among them is a very minute particle called the neutrino. It has negligible mass and no electric charge. Its intrinsic spin angular momentum is $h/4\pi$ where h is the Planck's constant and $\pi = 3.1412$ is a universal constant. But the spin of the particle should not be taken to indicate, as thought in the 1980s, as rotating on an axis like the earth, because concepts like 'rotating about itself' turn out to be very insufficient and improper when applied to sub-atomic particles. This particle interacts very weakly with other particles and hence it is very difficult to catch it or to 'see' it. It can pass through the entire thickness of the earth without interacting with any other particle, and thus without being stopped. So long as this particle is in existence, it constantly travels with the speed of light in a straight line, and when it interacts with any other particle, its existence comes to an end and it gives rise to some other particles. Its existence was first postulated theoretically in 1928, and it was observed for the first time in experiments in 1953. (Here we should note that elementary particles like electrons, protons, etc. cannot be seen by the eye. They create tracks and lines on specially prepared photographic plates in a laboratory.) The particle which has caused a certain track can be identified by properties like the length, breadth and curvature of the track or line, the number of lines meeting it at its starting point and end point, etc. Particles like the neutrino do not even cause any track, but they give rise to certain particles which produce their characteristic tracks on a photographic plate. Only from this kind of very indirect inference can one say that a neutrino has been found. Since a neutrino scarcely ever takes part in

3. A. D. Joshi and Alok Kumar, 'Mathematics, Science and Reality', *Science and Culture*, Vol. 49, (October, 1983), pp. 308-14.

interactions (collisions with other particles), only one in a thousand or million photographic plates may show up its existence. These are then the properties of a neutrino.

When a physics teacher tells his students about this miraculous particle, the latter find the pleasure of learning something new and listen very eagerly. But, when the same teacher tells the student about the existence of God or rebirth, the student is not willing to consider the subject. Yet there are more people who have experienced God's existence than who have experienced a neutrino.

If a common man meets a neutrino scientist and expresses his desire to see a neutrino, the scientist will say, 'Look here, a neutrino cannot be seen by our eyes like a ball, nor can it be touched with our hands. It has no smell nor taste. Like me, you will have to work in the laboratory night and day and try to search out a neutrino with great attentiveness from among thousands and millions of photographs. Only then there is a possibility of your success. But, even before that, you will have to spend several years studying physics and related subjects to understand the language of the lines and tracks on the photographic plates. Otherwise you may not notice the presence of a neutrino even when you come across a revealing photograph.' The above line of argument applies equally well to a God-seeker. Thus the God-man tells the God-seeker, 'I cannot show you God, I can only help you to seek Him. First you will have to attain a certain level in the path of God-realization with great efforts, so that you will be able to understand what I say and what I do. Till then you will not even understand my actions. Then with all concentration you will have to devote yourself to meditation to attain the various stages in God-realization.'

It is thus seen that one can divide knowing people into three main groups in any field. In the first category are those who

have personally experienced a neutrino or God and who derive the highest pleasure from such experiences. In the second group shall be the people who have reached a certain level in the path of knowledge, but who have not yet seen the neutrino or God. These people can understand to a great extent the language, actions and the discoveries made by the leaders of the first category. Finally, there are those belonging to the third category. It is even difficult to explain to people of this group what is meant by neutrino or God, leave aside its realization. People of this category, termed laymen, come to the second category by great effort and learning. Similarly, one or two out of hundreds of the second category can, with dedication and concentration, reach the first category. One person, of course, may belong to different categories in different fields of endeavour. Thus while Einstein belonged to the first category in physics, in biology or geology he would have to be placed in the second or third category.

Both of the present authors teach physics and do research in universities. After studying physics continually for fifteen to twenty years, we may now count ourselves as belonging to the second category in the field of physics. Even so, we have not seen a neutrino laboratory. (There are very few places in the world where research on the neutrino is going on.) We have only read about the existence of the neutrino and seen photographs in books, and on this foundation we teach our students. Why then do we believe in the existence of a neutrino? Because we believe in the authoritative testimony of others and we believe in the basic logical foundation of which physics is built up. Neutrino is a part of physics and we believe in the proof which is presented for its existence. We try to share this capital with our students and try to bring them from the third category to the second category of knowledge. Exactly so, we have read about

the ancient *Rsis*, *Yogis* and *Munis* and heard about their achievements. We believe in the foundation and the logic on which Vedic religion and Indian philosophy are based. Therefore, we believe in God and rebirth. Therefore we believe in the answer of Sri Ramakrishna Paramahansa when he said, 'I see Him as I see you, only far more intensely,' replying to the question 'Have you seen God?' put to him by Narendranath (later Swami Vivekananda).⁴

Limits of Modern Science

We get knowledge about the physical universe through our five senses. Each of our senses is sensitive to one stimulus: Eyes are sensitive to light, ears to sound, so on. Thus our physical body can catch five stimuli which are constantly flowing in the universe. But can we say that these are the only five stimuli and that no more exist in the universe? It will be fair to believe that there may be several other stimuli existing and flowing around us, but that our physical body is unable to catch hold of any except the known five stimuli.

To consider the plausibility of this hypothesis, imagine that human beings had only four senses to gather knowledge, instead of five. Suppose the sense of smell were absent. How would the physical world have appeared to us in that case? Clearly it would have appeared quite different and incomplete as compared to what it appears to us now. In the imaginary world of four-sense beings, would a rose possess smell? Yes, but humans would be unable to grasp it and understand it. They would even be unable to know that a stimulus called 'smell' exists, or that the flower has some property that they are not able to know.

Modern science contains knowledge which

is gained through experiments and apparatus. It has no place for knowledge obtained through other means.

It is well known that several animals have more acute senses than human beings have. For example, cats and owls can see at night by means of infrared rays. Dogs have a very strong sense of smell. But apart from this, there is a possibility that animals may possess a sense not known to us. Such animals would be able to catch some unknown stimuli existing in the universe and to them the physical nature of the universe would appear quite different. We can thus see that the world that is projected to us by modern science is highly limited. It is like a man sitting in a room and looking at the universe through a window, and imagining that that is all the universe. In a similar manner, our physical senses merely provide us a window for looking at the universe, but no one knows how much of the real universe lies hidden beyond our window-view. Unfortunately, there is a group in the present age that is not prepared to believe that there is something beyond science. It is their firm belief that all problems in the world can be solved through science—in spite of all evidence to the contrary. This unshakable belief of some persons in science, arising from short-sightedness, can itself be called a superstition.

The five stimuli to which our physical body is sensitive can be converted into each other. Light can be converted into sound and sound into light. When a person smells a flower and says, 'What a nice fragrance!' he is changing smell into sound. A dog is also adept at this job. Then it is quite likely that stimuli other than the known five must also be getting converted into one of the known five. Suppose some sixth stimulus gets converted into light or sound through the agency of living beings or inanimate matter, then it will cause a great surprise among us, because we would be able to see the light or hear

4. Romain Rolland, *The Life of Ramakrishna* (Calcutta: Advaita Ashrama, 1970) p. 30.

the sound generated, but would not be able to know its source. This leads us to conclude that several events may be taking place in the universe whose causes we would not be able to understand within the physical domain of modern science. This is a possible explanation for events which are often called extraordinary, mysterious, etc.

Till the beginning of the twentieth century, space and time were considered to be two different entities. Einstein developed a mathematical formalism relating space and time which agreed better with experimental observations. This led to the discovery of the theory of relativity. Earlier we never thought of *time relativity*, since relativistic effects occur only when we are dealing with high velocities, and our experience was confined to non-relativistic domains. Yet it turns out that several scriptures such as the *Manu-Samhitā*, the *Yoga-Vāsiṣṭha*, and others mention *time relativity*.

A God-man says he is trying to find the truth. A scientist also says he is after truth. But a scientist is following the wrong path, resulting from ignorance and short-sightedness, and consequently, his 'truth' would be highly limited as compared to the 'truth' of the God-man. A scientist's path is full of pitfalls. Even when he reaches near the Truth, he would not be able to recognize it and would keep on faltering and seeking new paths. This is because the scientist's ways of getting knowledge are limited to his senses. On the contrary, the Vedic scriptures (*Gītā*, *Upaniṣads*, etc.) say that when a person closes the doors of his physical senses—retaining his introspective consciousness—his internal instrument of perception (his mind) becomes purified and he can see the beyond. If a person thus gets some extra-sensory experience, he would not even be able to communicate it to others, since our language is itself limited by our senses and turns out to be highly inadequate and insufficient for explaining the new experience.

It would be worth mentioning the views of some scientists in this connection. Niels Bohr, the Nobel laureate in physics, said:

We can admittedly find nothing in physics or chemistry that has even a remote bearing on consciousness. Yet all of us know that there is such a thing as consciousness, simply because we have it ourselves. Hence consciousness must be a part of nature or more generally, of reality, which means that quite apart from the laws of physics and chemistry, as laid down in quantum theory, we must also consider the laws of quite a different kind.⁵

Another scientist, Fritjof Capra, says:

During the long cultural history of India...an enormous variety of techniques, rituals and art forms have been developed to achieve this purpose, all of which may be called meditation in the widest sense of the word. The basic aim of these techniques seems to be to silence the thinking mind and to shift the awareness from the rational to the intuitive mode of consciousness...the mind is emptied of all thoughts and concepts and thus prepared to function for long periods through its intuitive mode.⁶

Modern science is likened to a man seeing a mirage. He sees water in a desert and runs after it hoping every moment that now he would arrive there, but he never finds it. Similarly modern scientists are running with the hope that now they would reach a goal, soon they would reach *some goal*, but they will never reach it as they are running on a wrong track. Do they even know what their goal is?—for which colossal, global efforts are being made, involving trillions of rupees?

Faith in astrology

Astrology is a characteristic component of Indian culture. It is no wonder that it

5. Werner Heisenberg, *Physics and Beyond* (New York: Harper & Row, 1971) p. 114.

6. Fritjof Capra, *The Tao of Physics* (New York: Bantam Books, 1980) p. 25.

has also been termed a superstition in the modern 'progressive' age. The simple criticism against astrology is: how the planets and the stars can affect human lives when they are so distant. It is a basic hypothesis of science that no material particle or effect can travel with a speed greater than that of light. The stars are so far away from us that light from them takes hundreds, thousands or millions of years to reach us. This has provided all the more good to the critics.

The opinion of an astrologer is worth considering. Paul Brunton, of Great Britain, asked the same question about fifty years ago to a famous astrologer in Varanasi: How can the planets and stars affect our lives when they are so far away from us? The astrologer's reply was something like this:

It is better that you regard the planets as being only symbols which stand in the sky; it is not they which really influence us, but our own past...it is not the planets which force you into shipwreck, but the inescapable results of your former actions. The planets and their positions only act as a record of this destiny.⁷

It can be said that the validity of astrology (like several modern sciences) is based on statistics. A statement such as 'such and such a combination of planets leads to such a result' may not, and need not, apply to all persons under question. But if predicted results come to be true in several cases out of a hundred cases studied, then there is nothing wrong in calling it an astrological law. It has been seen from our discussion so far that no law in any field other than in pure mathematics is ever a hundred percent true. In fact, in several cases the level of significance is quite low. A law cannot be disproved by producing a few exceptional cases.

7. Paul Brunton, *In Search of Secret India* (New York: Samuel Weiser, 1972) p. 206.

A science can progress if it finds State support. The tremendous expenditure made on meteorology, medicine, agriculture, geology, and other research areas by governments of several countries these days is really amazing. Our ancient sciences like astrology and *ayurveda* can flower and prove useful to society if comparable State support is given to them.

When a new law is discovered in science, it must be able to explain several events. But the real test of the law is that it should also withstand cross-examination in the reverse direction. Then it is taken as scientifically established. The following example taken from astrology is illustrative. It is a law of astrology that a person who has Jupiter in his ascendant is respected by all. One can look for Jupiter in a horoscope and predict accordingly. But the present case is of the reverse procedure. 'Sri P. N. Oak, a famous astrologer of New Delhi, once visited a gentleman, Sri Anant Athawale, living in Pandharpur, Maharashtra, who was not known to him previously. Several other persons were also coming to meet Sri Athawale. Sri P. N. Oak observed that as the visitors entered the room they saluted Sri Athawale by touching his feet, then took their seats. Oak asked Athawale whether his horoscope had Jupiter in the ascendant. Sri Athawale expressed his great surprise and answered in the affirmative.' If such counter-proof is found in science, it is treated as proof of the highest kind. What better and clear proof can one have for any statement?

Nowadays news is coming from western countries that people there also have started believing in astrology. Forty scientists of the U.S. Atomic Energy Centre studied the effect of the sun and moon on human behaviour and submitted their report to the U.S. Government. Their main conclusion was that the lunar phases, lunar and solar eclipses, seasons, dark spots on the sun, changes in sun's magnetic field, etc. do produce observ-

able effects on human behaviour.⁸ It is learnt that many practising psychiatrists and psychologists in the U.S. now consult hōros-
copes to predict what they call the 'mood
cycles of their patients'.⁹

Finally it must be admitted that there is some all-pervading force which is above everything and which may be called God. However accurate prediction an astrologer may make, he cannot determine or change the future of a person. It is well said in a Sanskrit verse:

*Phalānī grahacāreṇa sucayanti manīṣinaḥ
ko vaktā tāratamyasya tamekam
vedhasam vinā*

which means that great seers only can indicate the future by the planetary positions; who else but Brahma can say what will happen exactly?

Some modern researches

This article would be incomplete without mentioning some recent researches which indicate the funny and shallow character of modern research.

After performing some experiments on rats, Australian doctors have proved that saliva is necessary for faster healing of wounds. They divided the rats into two groups and caused them injuries. Rats in one group could lick each other's wounds while those in the other group were caged singly and thus barred from licking the wounds. It was found that wounds in the first group of rats healed faster.^{10, 11} Doesn't every village boy in our country lick his wound?

8. *Science Today*, December 1972, p. 31.

9. J. N. Sharma, *Times Weekly*, April 16, 1972.

10. *The Hindustan Times*, June 23, 1980, p. 5.

11. *McGraw-Hill Encyclopedia of Science and Technology* (New York: McGraw-Hill Book Co., 1977) Vol. 4, p. 176.

German scientists have proved after experiments that Indian *chapati* is more nutritious and better for health than light bread.

In 'advanced' countries, women are attended to only by the hospital staff during child-birth and no household persons are generally allowed to be present. But novel experiments have recently been carried out in Guatemala on women during child-birth. Women were divided into two groups. While women in the first category were attended to only by the hospital staff during child-birth, those of the second category were allowed to have one person of their choice near them during child-birth. The duration of labour pains was measured for each group. It was found that the average duration of labour pains among women of the first category was nineteen hours while that in the second group was only eight hours. The conclusion is crystal clear.¹² Yet in our own country doctors are creating Western atmosphere strictly by not allowing household persons to be present near women during child-birth!

We have two tonsil glands in our throats. During the 1950s there was a wave of tonsil operations. If a child constantly suffered from colds, if it was not growing properly, his tonsils were removed. When this went on for several years (as it is still being done in some parts of the world), new researches showed that tonsil glands were also necessary for our body and their removal causes more harm than benefit to the child. Mendelsohn says:

The victims of a lot of needless surgery are children. Tonsilectomy is one of the most common surgical procedures in the United States. Half of all pediatric surgery is for the removal of tonsils. About a million are done every year. Yet the operation has never been demonstrated to do very much good...Parents are lulled into believing that the operation 'can't do any harm'...A lot of

12. *Science Today*, December 1980, p. 13.

children show marked changes for the worse in their behaviour after the operation. They are more depressed, pessimistic, afraid, and generally awkward in the family.¹³

The common remedy for a disorder called detached retina is to stitch the retina by eye surgery. A few years ago, a U.S. eye surgeon tried an experiment on a patient. The patient was tied to a vertical wheel and the wheel was rotated half-circle so that the patient was head down and feet up. He was given this treatment for a few days. The surgeon hoped that the detached retina would attach itself by the effect of reversed gravity. This indeed happened and the experiment was a success. It is easy to recognize that the posture the patient was made to take was *śīrṣāsana* (the head stand).

A particular type of bacteria grows on cotton and destroys the cotton crop. Some scientists at the Punjab Agricultural University at Ludhiana have found out a chemical to destroy this bacteria. While they are advocating the use of the chemical to increase the yield of cotton, some other experts say that the bacteria will become immune to the chemical after a few years and then the cotton crops will be destroyed at an even faster rate. In support of their claim, the experts quote the example of D.D.T. This chemical was discovered to be an insecticide about fifty years ago, and its use became very widespread all over the world. But within a few years new generations of insects were starting to develop high immunity to it. At the same time, D.D.T. began accumulating in foods and went straight into human blood. When it was found in the U.S.A. that its concentration was alarmingly high, its use was banned in that country. Yet it is being used in several developing countries.

13. R. S. Mendelsohn, *Confessions of a Medical Heretic* (Chicago: Contemporary Books, Inc., 1979) pp. 50-51.

There are two interesting studies on weight and dieting. Reubin Andres, a professor at Johns Hopkins University and clinical director of the National Institute of Aging in the U.S., feels that the weight charts in doctors' offices must be revised upward if people want to live longer. Several million people from different countries were studied and the results all pointed in the same direction, that the desirable weight fixed so far has been underestimated by 15 to 25 percent.¹⁴ The second study was conducted by Myron Winick, director of the Institute of Human Nutrition and a professor of nutrition and pediatrics at the College of Physicians and Surgeons at Columbia University in the U.S., and concerned the weight gain by women during pregnancy. The doctors so far advised women to keep weight gains to a minimum during pregnancies, with the rationale that this would protect the mother from future obesity and in no way affect the growth and development of the fetus. Both the statements have turned out to be wrong. 'Weight restriction during pregnancy' says Winick, 'will not protect the mother from future obesity and the fetus will not grow properly if the mother's weight gain is insufficient.'¹⁵

In Western countries a child is taken away from its mother immediately after birth and is handled entirely by the hospital staff. A new theory is now being developed in the U. S. according to which the mother should be allowed to handle the new-born even before it is washed. The father also, if he wishes, should be allowed to handle the child soon after its birth. It is said that this is good not only for the better mental and physical growth of the child, but good for the mother also.¹⁶

News has come of the need to revise

14. *The Indian Express*, June 4, 1981, p. 9.

15. M. Winick, *Science Today*, April 1981, p. 63.

16. *Reader's Digest*, October 1980, p. 37.

recent ideas in another field, this time the charts prescribing calorie intake by various persons. New research conducted by Edward Masoro of the University of Texas Health Science Centre and Roy Walford of the School of Medicine at the University of California, indicates that 'only about two-thirds of the calories previously thought necessary to maintain accepted body weight may add up to forty years to a human's life'.¹⁷

In this type of research, scientists get multiple credits. The scientist who originally proposes a hypothesis, the scientist who slightly modifies it, and the scientist who, a decade later, proves the hypothesis to be wrong, all get credit for something whose net result is nil. It is clear that scientists are under pressure to publish their half-baked results without bothering to examine a problem from all angles, including social, economic, psychological, and other. This is like the claim of a newspaper editor who says: 'We were the first to report that there was a fire in the city and we were the first to report that it was a false news.'

With this sampling of modern research, one can confidently say that several of our so-called primitive practices were the probable result, of ignorance, but of a deeper understanding, farsightedness and desire for simplicity than we can now fully appreciate.

Conclusion

We have tried to show in this article that several of our faiths and beliefs, which have been termed superstitions, are not really so, but may indeed be well-justified beliefs based on firm foundations. To believe or not to believe in a statement depends on the percentage of events favourable to the statement. Critics generally have a great predilection or weakness which one should

be wary of. When a critic wants to persuade others of the truth of his own statements, he may produce a couple of favourable examples and say, 'Look, doesn't this prove my statement?' But when he wants to disprove someone else's, he may produce a couple of counter-examples and categorically affirm that the statement is thus baseless and superstition. Therefore, it is well to remember that a few exceptions do not disprove a law except in pure mathematics. Is it not jokingly said that exceptions prove the rule?

Another common criticism is that there is a good deal of fraud in religion and astrology so that one does not know whom to believe and whom not to. Though the criticism is to some extent true, there is enough fraud and falsehood in science and modern research also. Thousands of research papers are being published and hundreds of new theories are being propounded everyday throughout the world in hundreds of journals. One would indeed be naive to believe that all this research is a result of genuine and faithful work.

Specific examples of fraud have been publicized recently. The British science magazine 'Nature' brought out a case of fraudulent research work of a German scientist which was admitted by the perpetrator. In another case, an anthropologist took a human skull, sawed its teeth in a particular manner, buried it deep, and then brought a team of scientists to excavate at the site. They 'discovered' the human skull, its jaw and teeth and it created a wave of excitement throughout the scientific world.¹⁸ The anthropologist, 'proving' a certain aspect of human evolution, earned a great repute, though temporary, for he was found out and discredited. In today's competitive world, a scientist may resort to any hook-or-crook

17. *The Hindustan Times*, May 20, 1983, p. 5.

18. V. V. Bhujle, *The Times of India*, September 10, 1978.

tactic to show that he is also doing something. This attitude must be changed.

We have discussed the nature of scientific experiments, research and surveys, and their conclusions. From this, in our opinion, we can boldly declare that our faiths and beliefs based on thousands of years of experience cannot be proved wrong by only a few months or a few years of modern research.

It does not mean that there are no superstitions in our society. But then every society has some superstitions and frauds, as there are in science also. It may be said that all our beliefs may be true to a greater or lesser extent. After all, to decide the truth in any matter depends to a great extent on one's own discrimination.

Proto Indo-European and Sanskrit-English Cognate Words

SWAMI MUKHYANANDA

It has been known to orientalists for over two centuries that a number of classical languages such as Sanskrit, and the ancient Avestan, Old Greek, Latin, and their family of languages in India and Europe, are cognate and that they have developed out of a common widespread root-language, which came to be designated, in due course, as the *Proto Indo-European Language*. As far as is known, the first European who learnt Sanskrit in modern times was Filippo Sassetti, an Italian, who lived in Goa in India between 1583 and 1588 A.D. While translating a Sanskrit medical treatise, *Rāja-Nighantū*, he noticed the kinship between Sanskrit and Italian. But his work remained unpublished till the 19th century.

Next we find that a Frenchman, George Vourchier, had collected the Avestan *Vendidad Sade* in 1718 at Surat, on the west coast of India, from the Zoroastrian Parsis settled there. Anquetil Duperron (1731-1805), another Frenchman, saw part of this *Vendidad Sade* in Paris in 1754 and getting interested in further research, came to Pondicherry (then a French possession in

India on the east coast) in 1755 and over the next few years learnt Persian, Sanskrit, and a few other Indian languages. Travelling through Tamil Nadu, Hyderabad, and Bengal, he came at last to Surat where he collected a number of Avestan manuscripts and compiled a Pahlavi-Persian Dictionary. In 1759-60 he completed the translation into French of *Vendidad* and other Avestan texts, about 2500 pages, and returned to England in 1761. Besides the Avestan manuscripts, he brought with him about 180 Vedic and other Sanskrit manuscripts. (Later, in 1782, he deposited all his collection of Sanskrit and Avestan manuscripts and books in the Royal Library of France.) In 1771, he published a French translation of *Zend Avesta* and later on other Zoroastrian scriptures.

In 1775, Duperron received a copy of fifty *Upaniṣads* rendered into Persian at Delhi in 1756-57 at the instance of the Mughal Prince Dara Shukoh, and made a French translation of them in 1787. But, being dissatisfied with it, he completed a Latin translation by 1796, which contained

nearly 1700 pages in print. In 1801-02, two extensive volumes of the work were published in Strasbourg. Duperron, too, noted the similarities between the ancient Zoroastrian language Avestan and Sanskrit on the one hand and between them and Latin and French on the other.

As is well known, Arthur Schopenhauer (1788-1860), the German philosopher, went into ecstasy on reading these Latin translations of the *Upaniṣads*, and paid very high tributes to the *Upaniṣads* in his writings which are often quoted. In 1818, he predicted that the West's acquaintance with the Vedic lore would afford them the "greatest privilege which this still young century may claim before all previous centuries, for I anticipate that the influence of Sanskrit literature will not be less profound than the revival of the Greek in the fourteenth century." No edition of the *Upaniṣads* in print in any European language preceded Duperron's except Sir William Jones's English translation of the *Īśa Upaniṣad*, posthumously published in London in 1799.

Next to Duperron, it is William Jones (1746-94) who did pioneering work in Sanskrit studies. He it was who first announced publicly in 1786 the cognateness of Sanskrit to Greek, Latin and other European languages in his address to the Asiatic Society of Bengal. Duperron's work and views, augmented by the work of William Jones, created a great stir and keen interest among scholarly circles in Europe and England. Besides Schopenhauer, eminent persons like Friedrich Wilhelm Schelling (1775-1854) in Germany, H. H. Wilson and Sir Monier Williams, both Boden Professors of Sanskrit at Oxford in 1832 and 1858 respectively, and Friedrich Max Muller (1823-1900), in England, among several others, were greatly influenced. The astonishing similarities between Sanskrit and European languages were noted. Sanskrit studies were pursued with keen interest in England, France, and

Germany in the first instance, and later in other parts of Europe, Russia, U.S.A., Japan, and other countries. The cognate nature of Sanskrit, Avestan, and European languages were recognized and the term *Indo-European* was coined for this family of languages. As against the Semitic languages, these were considered as 'Aryan' languages.¹

Soon after, the science of comparative philology came into being with the efforts of Wilson, Max Muller, and other orientalists. In India William Jones had founded the Asiatic Society of Bengal at Calcutta in 1784 for the furtherance of Sanskrit and oriental studies. Great interest was also taken by some Orientalists, not only in the study of Sanskrit literature and comparative Indo-European language, but also in the question of the original habitation of the 'Āryans' who spoke these languages. Many diverse and conflicting views have been expressed by scholars in the matter according to their own knowledge and understanding, prejudices, and sometimes political considerations, adducing sometimes somewhat cogent, but often far-fetched reasons

1. The 'Aryan Race' theory is a myth concocted by some of the early western Orientalists and unthinkingly given wide currency by scholars without investigation. There is no reference to any Aryan race in the whole of Sanskrit literature. The word *Arya* was used, in the first instance, for the *Viś* (the common people) from which arose the *Vaiśya Varna* or *caste*, who used to cultivate the land. (Cf. (L) *Arare*—plough, arable land) Then the word *Arya* was given a wider usage to cover those who cultivated the mind and character. Hence it was applied to all individuals or groups who were cultured and noble, especially to those who came under the influence of the *Vedic* culture. The others were referred to as *An-Arya* (*non-Arya*) or, if they were barbarous, *Dāsas* or *Dasyus*. Later on all these *non-Aryas* were designated as *mlechchas*. The call was given in the *Ṛg-Veda* itself to make the whole world into *Aryas* (*Kṛṇvanto visvam āryam.*) It is, therefore, quite clear that *Arya* was an ideal of nobility and not the designation of a race.

for their views. We find mostly these views relate only to the Indo-Europeans and not to the Vedic people. We shall try to present subsequently, in Part II of this paper, our study of the subject from the point of view of the extant old Sanskrit literature in regard to ancient traditions in India as far as the Vedic people are concerned, keeping in view the ideas expressed by others.

2. The Proto Indo-European Region

The Proto Indo-European language family seems to have been spread over a vast area with its regional dialectal differences. The peoples speaking those languages may not have belonged to the same race, as is often the case even now with regard to the persons speaking the same language. They must have been clustering in convenient areas according to their clans or tribes, and not spread out uniformly in this vast region. Perhaps there were also here and there in this region tribes speaking other languages as well. It must also be remembered that in those ancient days (about 10,000 B.C.) the population was not large, and the people in this region may have numbered on the whole about 8 to 10 millions.² The people of the different tribes, who lived sparsely in villages with their livestock, very likely used to move about freely in a semi-nomadic state in

². According to the *Great World Atlas* (p. 140), published by the Reader's Digest Association, New York, "It is estimated that there were about 500 million people in the world in A. D. 1650; 1000 million in 1850; 2000 million in 1940; and about 4000 million in 1976. The doubling of the population, which not long ago took 200 years, now takes place in less than 40 years." (The population of the world in 1989 was estimated at 5,000 million.) On the basis of the above figures, even allowing for very slow growth of population long before 1650 A. D., it may be surmised that about 10,000 B. C., the world population may not have exceeded 50 millions. Hence in this region, it may have been only about 8 to 10 millions.

groups in search of food and fodder and other necessities in that vast area, giving scope to mutual influence and borrowing of words and ideas, especially from the dominant groups. Since how long these tribes had been living there, it is difficult to say; but we may surmise that they may have been there at least during the neolithic period, about 12,000/10,000 B. C. It is also certain that they must have lived in that common vast area for a very long period before dispersing to different places.

As far as can be judged by the natural evidences and historical circumstances of the emigration and distribution, in due course, of the different groups speaking these Indo-European languages, the habitation of the Proto Indo-European peoples seems to have covered between 10,000 and 7,000 B.C., roughly speaking:

(1) Some northern parts of Sindh above 27° north latitude (covering Multan or *Mūla-sthāna*—the 'original place') and some northern parts of undivided Punjab, including Himachal Pradesh (probably in 10,000 B. C. from above the Salt-Range to below the confluence of River Beas with River Sutlej, and then to the east along the Sutlej River) above 31° north latitude, and Jammu and Kashmir in India (for the purpose of this paper the pre-partition India is meant);

(2) From Sindh, along Quetta, Kandahar, and Herat, parts of northern Afghanistan, and northern parts of Iran along Mashhad up to the base of the Caspian Sea;

(3) The greater part of Central Asia.

(a) On the western side up to and along the Caspian Sea, and northward along its coast and along the Ural/Volga rivers up to the Ural Mountains (between about 50° east longitude and about 60° north latitude);

(b) On the eastern side, north of Kashmir and western Tibet (up to 85° E.), passing through western parts of the

Altai Mountains and along the river Yenisey (between about 60° N. and 90° E.).

It is also likely that in the early stages these people lived mostly in the mountainous regions.

A very basic bipartition of this Proto Indo-European language family by philologists has broadly classified it into *Kentum* and *Satem* languages. *Kentum* (*Centum*) and *Satem* (*Satam*) (Sanskrit), both meaning 'a hundred', indicate their cognate but different sound systems. The *Satem* languages were geographically located mostly in the southern and eastern parts of this vast region with greater affinity to Proto-Sanskrit (*Vedic*), while the *Kentum* languages were geographically located mostly in the northern and western parts with greater affinity to Proto Greek and Latin.

3. Sanskrit-English Cognate Words

Though the *Kentum* and *Satem* groups of languages have drifted away more and more from each other in course of time, after geographical separation between 7,000 and 6,000 B. C., developing their own distinctive life and thought and world-view independently, influenced by their history and experiences in their new geographical environments and by their tribal or racial characteristics, still their basic cultural unity in the long past can be clearly perceived in some of the old religio-mythical concepts and by a study of the words used for denoting certain common nouns, verbs, pronouns, body limbs and organs, kin-relationships, etc. This cognateness of the languages and their similarity of concepts in respect of religion and culture (more pronounced in the case of the *Vedic* and *Avestan* and the *Greek*), perhaps recognized and well-understood in ancient times, was taken for granted and no one thought there was need to make special mention of it. However, in course of time

and history, these various groups were greatly isolated from each other and developed in different directions in their new habitations and were almost completely estranged owing to geographical separation for several thousands of years and by the intervention of powerful Semitic cultural groups between them, effectively were checked from all direct intercourse. This state of affairs lasted for a long period, though temporary and short-lived contacts were established between Sanskritic and other Indo-European speaking peoples during the time of Darius I of Persia in the sixth century B. C. and in the post-Alexandrian period, until in modern times Europe and India came into direct contact by the adventures of European nations and the affinity was re-discovered by the Orientalists as already stated.

However, it is not known whether any comprehensive list of similar and cognate words in Sanskrit, Prakṛt, and other derivative Indo-Aryan languages, including the *Avestan*, on the one hand, and the *Old Greek*, *Latin*, and other cognate European languages on the other, has been compiled and published from a historical evolutionary perspective, beginning with the early times. It would indeed be an immense and greatly exacting work of international co-operative endeavour. But, out of curiosity, we have collected over the years, casually, a large number of such words which we came across, mostly from the current Sanskrit and English, which may just give an idea to the general public of their cognateness. They indicate that either these English words were derived from Sanskrit or Proto-Sanskrit, or from the common parent of all the Indo-European languages—i.e. the widespread and regionally differentiated Proto Indo-European (of course, mostly through the media of *Greek* and *Latin*), just as the 'Indo-Aryan' languages have derived most of their words from Sanskrit. Seeing so many direct similarities

in their words between Sanskrit and English, it looks as if, apart from the Greeks who were the closest, the tribe of Angles too lived close to the Vedic people in their original habitat.

4. Mode of Presentation

Before presenting the collection of words, we may make a few introductory remarks as to the criteria of cognateness adopted.

(a) Allowances are to be made for English spelling and pronunciation, besides changes in meaning owing to transformations caused in compared languages over the course of 7,000 years of separate existence. We see such changes even within the same language from time to time over centuries. Probably the older forms in both were more close to each other, and in a far greater number, both in form and meaning. Sometimes the odd spellings in English indicate their origin—as in *two*, *know*, etc. which are cognates to Sanskrit *dwa/dwau*, *jna* (L. *gnosis*), etc. Sometimes the words of other European languages are closer.

(b) Sometimes, though we do not have direct equivalents, we find cognates in adjectival or other derivative forms, and in scientific terminology, taken from Greek or Latin, e.g. Sanskrit *danta* (tooth)—English dental, dentist; Sk. *tvak* (skin)—Eng. touch, tactile; Sk. *kapāla* (skull or forehead)—Gk. *kephale*, cephalic etc.

(c) In English spelling, the same letter in some cases represents different sounds, e.g. *c* for *k* (*cot*), for *s* (*cent*, *cess*); and in some other cases more than one letter is used to represent a particular sound, e.g. *ck* for *k* as in *lack*; *ch* for *k* as in *character*, etc. Cf. also the use of *u* in *put* and *but*.

(d) We find transformations of sounds such as *S* into *H* as (*Sindh* *Hind*, *Ind*); *v* into *b* or *bh*, and *w*; *j* into *g* (*Gen*), *j* into *k* (*know*); *g* into *c* (*gow* into *cow*); *l* into *r* (*loll-roll*); *s* into *c/k* (*samiti-committee*); *ph* into *f*, etc; and vice-versa. In old Vedic *sh* was pronounced as *kh*, and *ksha* as *kkha* (Cf. *puruṣa*—*purukha*; *Upaniṣat*—*Upanikhat* *Manuṣya*—*Manukkhā*; *lakṣa*—*lakkha/lakh*; *pakṣa*—*pakkha*, etc. have come down in some North Indian languages.

Out of some thousand cognates or similar pairs of words we have collected, a few are listed here:

Pronouns:

1. Aham, Aham asmi	I, Me, I am
2. Wayam (Vayam)	We
3. Yūyam, Yuṣmat, Yuṣmākam	You, Your, to you
4. Te, Tān	They, Them

Relationship

1. Mātrū (Mātr)	Mother, Mater (Latin)
2. Sūnu	Son, Soonu (Old English) (O.E.)
3. Duhitṛū (Duhitr)	Daughter

Body, Limbs, Organs:

1. Vapus (body)	Corpus (L) ; Cf. Corporeal
2. Kapāla (forehead, skull)	Kephale (Greek), Cf. Cephalic
3. Bhrū	Brow
4. Akṣi (eye) (<i>Vedic—Akkhi</i>)	Oculus (L) ; Cf. Ocular
5. Nāsa, Nāsika	Nose
6. Hṛit, Hṛidaya	Heart
7. Ulva, Ulba	Vulva
8. Anguli, Angura (Vedic)	Finger
9. Charma (Skin)	Derma-tology
10. Asthi (Bone)	Cf. Osteopathy, Osteon (Gk)
11. Snāyu	Sinew
12. Sweda	Sweat

Numbers:

1. Eka (one)	Aequus (L)
2. Dwau, Dve, Dvi	Duo (L), Two, Dual, <i>Two-light</i>
3. Tri, Tritiya	Three, Third, Triad
4. Sas, Sat	Sextra (L)

Prefixes, Suffixes, & Miscellaneous:

1. A (negative)	A-dvaita A-daivika	Non-dual a-theist
2. An (negative)	An-anta An-āsakta An-adhikṛita	Un-attached Un-authorized
3. Na, Nis (negatives)		No, not, non-
4. Ja, Jan (Born of, produce)		Cf. Gen, Gene, Genetic
5. Pūrva, Pūras		Prior, Fore, Before
6. Pari (All-round)		Peri-meter, Peri-patetic
7. Upari		Upper, Above
8. 'Halā Sakuntala' (Kalidasa)		'Hello, Sakuntala'

Nouns:

1. Aggresara (forward-moving)	Aggressor
2. Agni (Fire)	Ignis (L) Cf. ignition, Igneous
3. Akṣa	Axle, Axis
4. Alayam (House, Abode)	Asylum
5. Amṛta	Ambrosia, (Gk) Ambrotos
6. Āsvāšana	Assurance
7. Aṭṭa,	Attic
8. Bhūrja	Birch
9. Budbuda	Bubble
10. Charitra	Character
11. Damaru	Drum
12. Dānava	Demon

13. Diṣṭi	Destiny
14. Divā	Day—time
15. Dyaus-Pitar	Jupiter (Zeus-pater)
16. Fena (Phena)	Foam
17. Go, Gow (Earth, Cow)	Cow, (Gk) Gai, Gae—Earth
18. Grāsa (Go-grāsa)—Food	Grass (Food for the cow); Cf. Grub
19. Harmya (Mansion)	Home
20. Hora	Hour
21. Jarā (old age)	(Gk) Geros, Cf. Geriatrics
22. Jñāna	Gnosis, Knowledge
23. Kapola (Cheek)	Cupola (rounded like the cheek)
24. Karṭru (Karṭr) Kṛiti (Kṛti), Kriyā	Creator Creation
25. Kośa Kośa (Treasury)	Case Cf. Cash
26. Kalevara, Kuṇapa	Cadaver, Corpse
27. Lakṣmī—Cf. Lakkhi (Goddess of Fortune)	Luck, Lucky
28. Loka (World, Plane)	Cf. Local, Locality
29. Madhu, Mada (Honey, Wine)	Mead, Medhu (OE)
30. Mānava, Manuṣya	Man
31. Maraṇa (Death) Māraṇa (Killing)	Mortis (L) Death, Cf. Mourn Cf. Murder
32. Mātrā	Mora, Metre (Poetic)
33. Mithyā (unreal, false)	Myth
34. Mīti (Measure, Limit)	Metry, Li-mit
35. Nīḍah	Nidus, Nest
36. Nisarga	Nature
37. Pada (Foot)	Cf. pedal, pedestrian
38. Pālaka, Pulīsa (Aśokan)	Police
39. Pant, Papaha	Pope, Pontiff
40. Pātra	Part (in a drama)
41. Piṣṭa (Flour, Pounded)	Paste, pestle
42. Pota	Boat
43. Prachāraka, Prachāra	Preacher, preaching
44. Purohita	Priest, Prior
45. Puruṣa	Person
46. Rāga (Anger), (Colour)	Rage, Rouge
47. Samiti	Committee
48. Sat, Santa	Santa, Saint
49. Sarpa	Serpent
50. Sar, Char (to move) Saratha, Sārathi	Car Cf. Chariot, Charioteer
51. Stambha	Stump
52. Sthāṇa, Stāṇaka	Stand, Station
53. Sūtra	Suture

54. Taru	Tree
55. Ojas, Urjā	Energy
56. Urṇa	Wool, Woollen
57. Vastra (Clothing)	Vesture, Vestry
<i>Adjectives:</i>	
1. Antar, Antarīna, Antarima	Interior, Internal, Interim
2. Antar-nihita	Inherent
3. Asthira	Cf. Unsteady
4. Barbarah	Barbarian
5. Chāru	Charming
6. Choṣya (To be sucked)	Juicy
7. Krūra	Cruel
8. Mada, Matta (Intoxicated)	Mad, Maddened
Un-Māda, Mādaka	Madness, Maddening
9. Nau (Ship), Nauka, Navya Nāvika	Navy, Naval Navigator
10. Nava	New, Neo
11. Nikāṭa, Nediṣṭa	Near, Nearest
12. Sama, Sāmya	Same, Similar
13. Saura	Solar
14. Svasti	Safety
15. Tumula	Tumultous
<i>Verbs:</i>	
1. A-karṣ, Akrista	Attract, Attracted
2. Arjanam	Earning
3. Bhik (Bhikṣu)	Beg, Beggar (Mendicant)
4. Bhū, Bhav	Be, Become
5. Ish, Iṣṭa	Wish, Wished for
6. Lī, Lay	To lie down
7. Lih, Lidha	Lick, Licked
8. Prastha, praṣṭhana	Proceeded, Proceeding
9. Puro-bodh	Forebode
10. Rish (to move quickly)	Rush
11. Sarga, Sarjana (move forth)	Surge
12. Siv	To Sew (Note the spelling)
13. Sūch (to Indicate) Sūchana	To Suggest, Suggestion
14. Udīr	To Utter
15. Vinash	Vanish
<i>Miscellaneous:</i>	
1. Anukampā, Anukampita	Compassion, Compassionate
2. Marīchikā	Mirage
3. Soman	Moon
Chandra-mas, Māsa	Month
4. Dvidha (make into two)	Divide
5. Churn (to Crush)	Cf. Churn, Crushed

REVIEWS & NOTICES

J. KRISHNAMURTHI AS I KNEW HIM by Susunaga Weeraperuma; published by Chetana, Bombay; 1988; pp. 170; price not stated.

"The work is not a biography," the author declares in the Preface. Strictly speaking it is not; yet the title has biographical overtones and indeed much of the first part is reflective of biography. As such, Weeraperuma's reminiscences of his long association with Krishnamurti, the widely acclaimed spiritual teacher of our century, are to be expected, and make, by and large, interesting reading. The endearing qualities of the sage—his all-encompassing love for humanity, his childlike nature, his concern for public issues and, above all, his subtle sense of humour—are illustrated by the author through incidents from his long association with him.

The book is thus a commendable attempt to depict Krishnamurti "less like a deity and more like an ordinary person with human traits." There are instances, however, where the author's admiration for his hero seems to overreach itself and lose thereby the sense of balance and proportion. For instance, when he states that "If Krishnamurti's teachings happen to have been uttered by other sages, mystics and teachers, it is accidental because he speaks from direct and first-hand knowledge," does Weeraperuma imply that the wisdom of the others is accidental and that Krishnamurti's is authentic? Similarly, the author labours rather painstakingly, through a fairly regular doses of repetition, the points of similarity between the Buddha and Krishnamurti. Doubtless, the author tries to strengthen his convictions by citations from several persons but the reader is left with the impression that the points are stretched and overemphasized. The whole issue is intriguing in the context of Krishnamurti's basic premise of freeing the mind from all 'conditioning'.

This reflects the deeper issues raised by the book. The personal touch which marks the first part lends the account undoubted authenticity but the incidents follow each other in quick succession which makes the narrative lack transition making it appear disjointed. Moreover, the author's manifest bias is something which all readers may not share: for instance, at one place he claims that "an unseen hand was helping me and trying to further the cause of Krishnamurti's teachings." This belief is perfectly valid; but when the author labels as "wishful thinking" the beliefs

of others regarding Sri Ramakrishna, Sri Ramana and Jesus as redeemers of the world through their own suffering and death, the perspective ceases to be comparatist and degrades itself to the level of partisan pontification. For, equally "wishful" is the author's thinking and belief about a "unseen hand". Thus the author's comparison of Krishnamurti with Sri Ramakrishna, Ramana Maharshi and other sages to establish the former's greatness is not in keeping with the catholicity of these thinkers. The question is: does Krishnamurti need such defensive and biased championing?

In contrast, the second part of the book containing dialogues with Krishnamurti brings to light some striking and insightful addition to the sage's published work. These dialogues constitute a valuable record of Krishnamurti's correctives to the contemporary human predicament. His counsels regarding the directing of mind effectively for undistorted observation, transcendence of the limitations of thought and self-awareness emerge clearly and sharply.

On the whole, this slim and well-brought out book is a welcome addition to Krishnamurti canon.

Dr. M. Sivaramkrishna

INNER YOGA (ANTARYOGA) by ANIRVAN (Translated from Bengali by Simanta Narayan Chatterjee). Published by Voice of India, New Delhi 110-002. 1988 pp. xiv plus 79; Rs. 40/-.

This small book gives practical hints on how to achieve inner discipline. The author bases his discussions on Patañjali's *Aṣṭāṅga-yoga* in the first two chapters. The rest of the book is devoted to Japa, Dhāraṇā, Dhyāna and Samādhi, in the light of the *Tantra Śāstras*.

The discussions are very lucid on each topic. They are not extensive but are nevertheless adequate.

This 80-page book has a 14-page introduction by Sri Ram Swarup. After a brief life-sketch of the author, Sri Anirvan, and his introduction to the book, Sri Swarup proceeds to discuss what he terms 'non-yogic' samādhi, or samādhi in the ordinary state of mind, which he feels is neglected in most books on Yoga. Unfortunately, however, he launches into a frontal attack on the Semitic religions, which is totally uncalled for and not only not germane to the theme of his book, but is the very anti-thesis of it.

Kamala S. Jaya Rao

CATHOLIC ASHRAMS: Adopting and Adapting Hindu Dharma, with a preface by Sita Ram Goel, Published by Voice of India, 2/18, Ansari Road, New Delhi 110002—August 1988. Rs. 70/-.

The present book investigates and evaluates the attitudes and strategies of the Christian mission which is trying to adopt the Hindu style in India for conversion of the Hindus into Christianity. There are three sections in the book. The first section gives the history of the Christian mission in proselytization of the masses. The second presents the dialogue between Father Bede Griffiths and Swami Devananda on adopting Hindu symbols and style to express the Christian faith in terms intelligible to Indians. The third section includes three appendices which give graphic description of the working of Christian asramas in India—what their weapons are for making converts and how Christianity is losing its hold in western countries.

While addressing the audience in the final session on 27 September 1893 at the Parliament of Religions, Chicago, Swami Vivekananda declared, 'Do I wish that the Christians would become Hindu? God forbid. Do I wish that the Hindu or Buddhist would become Christian? God forbid... If the Parliament of Religions has shown anything to the world it is this: It has proved to the world that holiness, purity and charity are not the exclusive possession of any church in the world.'

In keeping with the light and charity of the above statement of Swamiji, the leaders of Hinduism and Christianity should come together and try to understand the greatness of each religion. Christianity is being preached by some who claim that Christianity is the only way for salvation. This book is a protest against such belief of the Catholic churches. By indigence and conversion the spiritual condition of the people is not uplifted. Apparently Hindu leaders are becoming apprehensive about the methods employed by some Christian preachers, the attitude of Catholic asramas which adopt Hindu traditional symbols, and the manner and style in which they carry on proselytization. According to the book, these Christian organizations are disguising their activities in Hindu forms while keeping intact their dogmatic assertions. One must say that it is rather inadequate to adopt the symbols and outward forms of any religion without accepting the inner spirit.

The book needs careful study by all those interested in inter-religious dialogue.

Swami Brahmasthananda

THE MARATHON MONKS OF MOUNT HIEI by John Stevens. Published by Rider, London WC2N 4NW., 1989, p. viii + 158, Price £ 7.95.

Among Japanese Buddhist Schools Zen has been introduced widely and has become quite popular in the West. But there are many other schools which offer different kinds of spiritual trainings to attain the supreme aim of human life. The book under review introduces one such training known as *kaihogyo* developed by the Japanese Tendai school of Buddhism. *Kaihogyo* means circumambulating holy mountains by running and those who do this training are called *kaihogyoja*, in this book translated as marathon monks. This word *kaihogyo* is an awe-inspiring word for Japanese because of its severity of training; as the author writes in his epilogue: 'the severity of their (marathon monks) training defies belief.'

The book is divided into two parts: (i) 'The World of Tendai Buddhism' and (ii) 'The Marathon Monks'. In part one the author deals with the life of the founder of Japanese Tendai school, Saicho (766-822), the short history of early Japanese Buddhism with its ups and downs, Tendai philosophy, Mt. Hiei, near Kyoto, (the seat of the Japanese Tendai school) and Tendai systems of study and practice etc.

In part two, the life of *kaihogyoja*, marathon monks is explained in detail. *Kaihogyo* can be divided into three categories: (i) one-day term, (ii) 100-day term and (iii) 1,000-day term. The book dwells mainly on a 1,000-day term which is meant for a few strictly selected monks. Since 1863 only about 50 monks have completed this term.

As shown above, marathon monks cover 30 to maximum 84 kilometers for 100 days continuously whether it rains or snows. Their run starts generally at midnight and they have to run alone, with continuous chanting of their guardian deity's *mantra* and stopping at numerous shrines to offer prayers. It takes from 6 hours to 18 hours for them to complete this run and if they fail to complete any part of the training, they have to commit suicide, for which they carry with them a dagger or suicide cord. After completion of 700 days of *kaihogyo*, the monks have to undergo *doiri*, which is a nine-day prayer-fast without food, water, sleep and rest. It is called 'living death'.

All these training are meant for getting the vision of their guardian deity who is one of the manifestations of Buddha, and becoming one with him. Marathon monks get various mystical experiences through their run. Their accounts after the completion of this marathon are very interesting and we can catch a glimpse of their attainments. One monk tells, "...as if the entire universe was mine,..." Another monk tells, "All I learned is that I was walking in the palm of Buddha's hand." Yet another monk assures, "If you are not afraid of death, you can achieve anything. Put your life on the line and great enlightenment will be yours!"

What makes the marathon monks run? To understand this, one must know that Buddhism is not a matter of intellect but of experience: 'Learn through the eyes, practise with the feet.'

The author gives the following reaction of those who practice *kaihogyo*, not only of monks but even of businessmen: 'First day: Tough but interesting.' Second day: "How did I get myself into this?" Third day: "I am going to die." Fourth day: "Hang on—may be, I can make it." Fifth day: "Things are looking up." Sixth day: "Only one more day left." Seventh day: "I did it! All in all, it was not so bad."

This is a beautifully brought out book with wonderful photographs which help the reader understand the subject better. The sincerity, dedication and determination of marathon monks cannot but inspire readers, specially spiritual seekers.

The author is well-known for introducing culture, martial arts and customs etc. to the English-speaking world. This reviewer has read some of his articles and is impressed by his deep understanding of the Japanese way of life.

There are a few minor mistakes. On page 38 it is mentioned that Nobunaga was assassinated by his enemy; but actually he was assassinated by his vassal in rebellion. On page 107 *Okuyama* Prefecture should be corrected as *Okayama* Prefecture. The first name of Horizawa quoted on pages 43 and 53 is not clear, whether it is Shomon or Somen.

Swami Satyalokananda

STRUCTURES OF CONSCIOUSNESS (The Genius of Jean Gebser) An introduction and Critique by Georg Feurstein; Integral Publishing, P.O. Box 1030, Lower Yake, California 95457 p. 240; 1987; \$ 14.95.

A new book by Georg Feurstein is always an event. Gifted with penetrating insight into the complex areas of consciousness, yoga and integral inner growth, he is a far-ranging thinker.

The present book is a study of the contribution made by Gebser—"the Swiss cultural philosopher and poet laureate" as Feurstein calls him—to the study of consciousness' but it is in essence an exploration, incisive and far ranging, "of the dilemma in which we find ourselves, as individuals and collectively."

Gebser saw this dilemma as rooted in "the crisis of consciousness" which is in effect a complex of "social unrest, economic strain, political conflict and ecological imbalance." Hence the need, in Gebser's view, to come to terms with "consciousness" and its "evolution" so that we can diagnose the situation correctly and remedy it effectively.

Gebser's methodology for diagnosing this situation is, as Feurstein puts it, "a multilevel (or structure-specific) enterprise. It is founded in a Husserlian-type explication of the essential features of psychohistorical phenomena." Gebser himself, for conceptual purposes, coined the word "systasis" aiming at "synairesis" which "is an integral understanding, or perception of reality."

The most crucial of Gebser's formulations are: the nature of time and temporality. As Feurstein explains, for Gebser, time is more than a concept (a mental structure) and more than "clock or measured-spatialized time". Gebser calls it an "intensity" and it means not "freedom from time but...freedom in time" (shades of the *jeevanmukta*?). This, Gebser identifies as "the courage to accept along with the mental time concept the efficacy of pre-rational, magic timelessness and irrational mythical temporicity" which "makes possible the leap into a rational time-freedom. This is not a freedom from previous time forms, since they are co-constituents of every one of us; it is to begin with a freedom for all time forms."

The corresponding implications are analysed by Feurstein in a remarkably lucid way with a range of reference and methodology of exposition, stimulating to even the most voracious intellectual appetite. In short, with a highly helpful glossary, and a select bibliography, this book is indispensable as an introduction to Gebser in particular and invaluable as a seminal contribution to consciousness studies in general.

M. Sivaramakrishna

PRACTICAL SPIRITUALITY

I asked the Mother, "Mother, how shall I live my life?"

She replied, "As you are doing now. Ever pray to Him yearningly in constant recollection and contemplation of Him."

"Mother, I am frightened at the sight of even great souls—*Mahāpuruṣas*—slipping from the Ideal."

"If one lives amidst objects of enjoyment one is naturally overcome by them. Do not cast your eyes even on a wooden representation of a woman or ever go near it."

"But, is it not true that it is God who inspires man to every action?"

"Yes, it is true. But is man conscious of it? He thinks, in his blind infatuation that he is the doer—he does not rely on God. Whoever surrenders himself to God is saved. A *Sādhu* (monk) must be always alert. His path is very slippery, and a slippery path has to be trod with exceedingly careful steps....Just as the collar of a dog saves it from being killed as a street dog, even so does the ochre-robe of a *Sannyāsin* save him from harm. His is the royal road, and everyone makes way for him."...

"Mother, shall I practise *Sādhana* living in [the monastery], or retire for the purpose to a solitary place? Which is better?"

"Practise *Sādhana* for some time in some solitary place like Hrishikesh. This will so strengthen your mind that in whatever place or company you may keep it afterwards, it will remain unaffected. A small plant has to be hedged round against cows or goats. A

grown-up plant has not fear from them. Whenever you feel your mind stirred by undesirable thoughts and yet desiring knowledge, pray to Him earnestly—He will purify your mind and solve your doubts."

"Go on repeating His name, everything will come out all right. You may repeat His name a million times even though the mind is unsteady. You will hear the *Anāhata Dhvani* before the *Kundalini* awakes. But everything depends on the grace of the Divine Mother. The other day during the small hours of the morning, I had a vision of a Sivalinga—of Viśwanātha."

"But, Mother, these stone symbols of Śiva no longer satisfy us."

"Nay, my son, these are true. Many great sinners who visit Vārāṇasī (Benares) are redeemed of their sins by touching the symbol of Viśwanātha. He is graciously accepting everybody's sin. On Saturdays all sorts of people come and salute me, touching my feet. This makes my feet burn..."

"Well, Mother, as for these visions, are they subjective or objective?"

"Everybody says that they are subjective, but I have seen visions with these physical eyes. At Kāmārpukur I used to see a young girl with dishevelled hair and a garland of beads round her neck always keeping company with me wherever I went. It was only after I had practised severe austerities at Belur in Nilāambar Bābu's house that I ceased to see that vision any more.

Arise! Awake! and stop not till the goal is reached! *Katha Upaniṣad*, I. iii. 14

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A PALMYRA PALM

A sage, sitting beneath a palmyra palm—the pride of the tropics—whose tapering stem rose erect to the height of seventy feet and whose beautiful fronds reached high toward heaven, protected him from the fierce rays of the mid-day sun, picked up a seed and asked himself these questions. ‘Who,’ said he, earnestly regarding the seed he held, ‘could divine the tremendous potentialities, secreted within your limited compass! Who would venture to foretell the future greatness to which you may attain! To predict your amazing productiveness!’ Thus apostrophizing the invisible germ contained in the tiny shell, he thought how impossible it was to overestimate the value of the palm, ‘that prince of the vegetable kingdom’, as it has been well designated. Of what extraordinary economic wealth it was to man, furnishing such rich and abundant stores for his use. How in India, and other parts of Asia, it formed the main support of many thousands of the natives. Its gracious spreading branches afforded a grateful shelter to many animals, and its moisture was a haven of delight to orchids, ferns and other plants which attached themselves to its trunk. From its root medicine was obtained; food was supplied by the young plants, and the older wood was serviceable for walking-canes,

umbrella handles, and building requirements. The leaves also came in for their share of usefulness, such as thatch for houses, besides giving material for writing-paper, mats and sundry other articles. When young, the trees yielded sap, called palm-wine or toddy, from which palm sugar was extensively manufactured, and last, but not least, the wood became valuable for timber, when the trees had reached an advanced age—say, a century. In fact, there were more than eight hundred uses to which it could be put, and the sage marvelled at its surprising yieldingness, as he recognized that not one part of all its vast growth but served a purpose. Soliloquizing thus, on the magnitude of its life, his reflections turned from the tree to man, and introspectively following the train of thought thus opened up, the well-known line of a poet’s fancy passed through his mind—‘God will not give me less than the trees!’... As the whole tree is contained within the diminutive seed, was not also an immortal truth that the divine nature is concealed in man—not as a part only, nor as a separate thing, nor as a modification of the Deity—nay! but as the pure, happy, eternal Reality Itself now hidden by the great world-hallucination?