

On the eve of Remembrance Day of Hon'ble Bro. Jagdish Chandra Hassija

Raj-Yoga Meditation of Brahma Kumaris

WHAT DO EEG RESULTS SUGGEST?

ALSO A BRIEF COMPARISON WITH TM

By Bro BK Jagdish Chandra Hassija

In the present era of stress and strain, there are yogas galore. There is a vast variety of them in vogue—Hatha Yoga, Tantra Yoga, Nad Yoga, Laya Yoga, Kriya Yoga, Raj-Yoga (of Patanjali), Kundalini Yoga,



Sankhya Yoga, Transcendental Meditation (briefly known as TM). Tattwa Yoga and so many others besides these. There is also Raj-Yoga Meditation as taught and practised at Brahma Kumaris Ishwariya Vishwa-Vidyalyaya. It is different from others not only in respect of its goals, its ideological setting or theoretical base, its ethics and its method of practice but also in respect of

its short-term and long-term benefits. It has an approach, a philosophy, an ethics and a system of practice—all its own.

So, in these days of bewildering variety, some people comment: “We have various brands of Yoga in our country and everyone commends his own brand and, therefore, it has become very difficult for a yoga-seeker to know which one is the best and also the easiest. Since many people who go through English-language news-papers, have heard about TM (Transcendental Meditation, as popularised by Mahesh Yogi, they ask; What is the difference between Raj-Yoga of Brahma Kumaris and the TM?

Definition of T.M. and B.K.Raj-Yoga

As pointed out earlier, Raj-Yoga of Brahma Kumaris Institution differs from TM and other system in respect of its aims, theory, practice, ethics, etc. But, here, we will discuss it briefly in respect of only some of these.

Let us, first of all, see what 'Yoga' means to T.M. practitioners and to practicants of B.K.Raj-Yoga. T.M. is described as "*turning the attention inwards towards the subtlest levels of a thought until the mind transcends the experience of the subtlest state of the thought and arrives at the source of Thought.*"

Brahma Kumaris, on the other hand, define Yoga as '*lovedful and purposeful link of the soul with Incorporeal God by stabilising in soul-consciousness and God-consciousness.*'

Difference

Evidently, TM lays no emphasis and, in fact, does not mention focussing one's attention on God or practising soul-consciousness whereas in B.K.Raj-Yoga system, a link between soul and the Supreme Soul is considered as the very essence of Yoga. So, a logical knowledge of the soul and the Supreme Soul and of the intimate relationship between the two is explained so that a love bond is created whereas, in the TM., there is no mention of love for God. These points make a vast difference, for B.K.Raj-Yoga enjoins upon a person to sublimate his emotion, called love, because it feels that misplacement or misuse of this emotion is the cause of peacelessness whereas T.M. does not pay any special attention to this aspect of human character. Moreover, B.K.Meditation explains that body-consciousness is the root cause of all sufferings whereas T.M. does not lay any emphasis on this approach or on this analysis of the world-situation.

Furthermore, T.M. requires a person to turn his attention *inwards towards subtle levels of a thought* whereas B.K.Raj-Yoga Meditation necessitates to turn one's thought to the *self within* and, having stabilised in that awareness, to turn one's attention to God on - High with a feeling of deep love and with clear knowledge of Him. T.M. is known as '*Transcendental Meditation*' as it asks the practitioner to reach the thought level which transcends the experience of the subtlest state of the thought and arrives at the source of thought whereas B.K.Meditation asks practitioners to *transcend body-consciousness and have consciousness of only the transcendental entities*, namely, of the soul and of God, leaving behind all thoughts of the mundane, the gross and the material. On the one hand, the B.K.Meditation draws one's consciousness to the innermost entity—the self—and on the other, it links with the outer-most and the farthest-most, as one makes a long-distance call. It annihilates the distance and time by the factor of love and knowledge.

Method

Let us now consider the method of meditation, employed by both. This will clarify the difference more clearly.

Some of the Yoga-systems, mentioned in the opening para of this article, require years of laborious and persistent efforts, often in forests and desolate surroundings, under the guidance of a *Guru*, but the T.M. has gained favour with the Western people, because of its claim that it is easy and instant Yoga. But easier still is B.K.Meditation.

T.M.asks individuals to sit in any easy posture and with *closed-eyes* and with the mind *passively* focussed inwards on a *mantra*, repeated *twice a day* for about 15 to 20 minutes at a time.

B.K. Meditation asks a person to sit effortlessly and easily with *open or half-open* eyes and with the mind *actively and lovefully* meditating on certain aspects of God—His functions and His relationship with us—and to be so fired with and consummated in this love so that no other thought enters it. It asks the aspirants to practise it, first, in the very early hours of the day, at 3.30 or 4.00 A.M., then at 6.00 or 7.00 A.M., for at least 30 mts. at a time, and to repeat this practice five times a day (about 5 mts. each time) so as to gain stability in soul-consciousness and to practise it in the night for about half-an-hour. B.K.Meditation considers it important that one starts and ends one's day with meditation. So, it advises that the very first thought, after one wakes up, should be the thought that the self is a soul (i.e. 'I am a soul') and one should have thoughts of God, the Most Beloved Father.

However, if one does not have this much time, one may practise it for as much time as one can spare. It will be amusing to some to know that B.K.Meditation requires one to practise soul-consciousness all throughout the day because, truly speaking, soul-consciousness is one's natural and real stage from which one has fallen to a state of body-consciousness due to conditioning in a materialistic society. But, it is for those who wish to attain perfection; others who want to derive only some benefits from a short-time practice may practise it for as much time as is convenient to them to spare.

B.K.Meditation gives special instructions to practitioners to keep their eyes open, i.e. to be unmindful of the eyes and be natural with them as one is in a stage of awakening. By closing of the eyes, one is liable to fall asleep, for it is associated with passivity of mind. As we will explain later, some practitioners of T.M. did fall asleep even when their E.E.G. recordings were being taken. **T.M. has a special place for passivity of mind in its practice but B.K.M., it should be remembered, is associated with alertness, arousal and mental activity.** Sleep and lethargy during the practice of Meditation, are considered as obstacles in B.K. Meditation.

Another point, worthy of note, is that B.K.M. uses the psychological techniques of 'suggestion' and 'association of thought' to gain easy and better results. For example, some recorded music—vocal or

instrumental—is played during the practice. This reinforces one’s practice by bringing in rise in one’s emotion of love for the Supreme or by giving a channel of thought to his mind so that his contemplation does not scatter away in directions other than, the spiritual. Similarly, red light is switched on at the start of the practice. Red Light symbolises ‘stoppage of traffic’—in this case, it implies the stoppage of the traffic of thoughts of the material world. Red light also suggests the golden-red colour of Brahm—the sixth element in the Soul World, where God abides. It enables mind to transcend the thoughts of the gross world and to turn it to God, the Transcendental Being in the world, beyond the mundane. So, in this particular sense, it helps the *Transcendental Meditation of Brahma Kumaris and Brahma Kumars*. But the music and the Red light and such other things are not considered ‘essential’ to the practice, and one who has attained maturity in practice, can practise meditation not only without the use of these aids but even if there are any distractions in the environment.

Experiences make the difference clear

The difference in methods of practice will be more clear if we consider the subjective experience, the practitioners of T.M. and B.K.Raj-Yoga relate after the practice. The T.M. practitioners say that the state of mind, induced by T.M., may be described as ‘absolute stillness’, ‘emptiness’, complete awakening, ‘pure awakening’, ‘void’, ‘pure being’, ‘conscious but not conscious of any object’, ‘it is as if I was asleep yet unconscious’.

obviously, these expressions suggest the *passivity* of mind. It is not an ideal state. It is only a method of emptying one’s mind of thoughts that disturb him and the problems that prick him and, therefore, the expressions like ‘restful awakesness’ or ‘relaxed state’ are, perhaps, indicative not of positive peace but of only that rest which comes when a person has his mind free of disturbing thoughts.

Another important thing to be noticed is that, in T.M., **the mind is not focussed on any object**. The T.M. people are proud of it. They say that T.M. meditators have not to practise say concentration and this, they think, is their ‘plus’ point, because it makes the whole practice easy. Of course, it does make it easy, but they forget that the *mantra*, on which a meditator has to focus his mind also provides *a focal point*. Broadly speaking, this also is a kind of concentration, for, in this practice, one has to repeat the mantra to the exclusion of all other thoughts. And, we ask, what is wrong if one practises concentration? Is concentration a ‘minus point’? Everyone knows that concentration is an important tool in all learning and in judging matters and doing small and big jobs and in solving problems.

So, the subjective experiences, mentioned above, and expressed in the words, “conscious but not conscious of any object” or “emptiness” or ‘void’ are not actually of great merit; these are not laudable states. And what will one say of the experience, described in the words: ‘It is as if I was asleep yet unconscious’? How will you appreciate it, considering that it is supposed to be yoga-practice?

B.K. Meditators, on the other hand, describe the state of their mind in these words: ‘Blissful state’, ‘Ecstatic’, ‘Rapturous’, ‘Very peaceful’, ‘Experience of God’s love’, ‘Light and Relaxed’, ‘Withdrawal from the body’, ‘full of zest and creative energy’, ‘charged like a battery’, ‘Original state’, ‘State of deep silence’, ‘full of power’, ‘felt like bursting with light and might’, ‘Felt like radiating vibrations of peace, love, etc.’, ‘Experienced fully contented’, ‘Supersensuous Joy’, ‘Loveful union with God’, ‘Felt like being in the lap of God’, ‘Had directions from the Almighty’, ‘Gems of knowledge come forth’, ‘Happy as one finds an inexhaustible treasure’, ‘Feel purified’, it seems that now my that evil or harmful trait has been burnt for ever’, ‘The solution to my problem was revealed to me without my thinking over it’, ‘I feel altogether a changed man’, ‘My inhibitions are gone’, ‘It is like a new birth, new life,’ ‘I have rediscovered myself’, ‘Now I understand what difference yoga makes in the realm of thought and in life-style’, ‘I felt as if I took a refreshing shower of peace, love, bliss, light and might, all from the same Fountain’, ‘Now I am able to concentrate and this will greatly help me’, ‘I was in angelic state’, ‘I felt in the company of God’, ‘certain points of knowledge became more clear to me’, ‘I got vision of light’, ‘I got a vision of God’, ‘I saw the aura’, ‘I would love to practise it more and more’, etc.

As is clear, these expressions are indicative of altogether a different experience as compared to the T.M. These have a spiritual and ethical content also. These have direct effect on changing one’s mental traits and developing one’s restful state of mind. These give one an experience of the highest states of consciousness and of self-realisation and of one’s union with God, which is a very valuable experience that transforms one’s vision of the world and brings in him the qualities of compassion, love-for-all and hatred-for-none, simplicity, boundless efficiency and the spirit to serve others and to spend one’s energies for the welfare of the world at large.

In this practice, one does not have to curb one’s mind to attain concentration nor has one to *repress* one’s vile thoughts. One just switches on the awareness of the self as soul and turns one’s attention to God and the emotion of love brings in concentration without much effort. And, one experiences withdrawal from the body and weightlessness, and might and peace and bliss.

It may be noticed that the main thrust of the T.M. seems to be towards attaining state of relaxation. There is no special attention given to ‘union with God’ which, in fact, is what the word ‘Yoga’ connotes,

considering its derivation from the Sanskrit root 'yuj'—to connect. In its enthusiasm to make things easy so that it finds favour with larger number of men, TM has sacrificed very valuable benefits of Yoga and Meditation. It has omitted to mention anything about God and soul so as to draw in its fold people from all beliefs and has, thus, at one stroke, destroyed the very essence and the divine content of Yoga. It has adored passivity to such an extent that it has discarded concentration so that more and more people may take to this. “Easy, easy and easy, for the people are busy, busy and busy”, this seems to be fad with the T.M. people who do not mind to empty the meditation of all its valuable elements as they are over-zealous with the object of emptying the mind.

But B.K.Raj-Yoga is not difficult at all. You have not to take even the trouble of closing your eyes or to repeat your mantra. But, after all, one has to do something in order to gain something. Things will not come into our hands from thin air or will they? Even focussing your mind on the subtle aspects of the *mantra* is a mental effort or is it not? Then why not to stabilise the mind in the self? To be stabilised in the self is to return to the natural, to that what is our real state and, we ask, what is the objection to this?

The T.M. people say that, “by turning the attention towards the subtlest levels of a thought, and *transcending* the experience of the subtlest state of the thought, the meditator will arrive at the source of thought and that will expand his consciousness”. Now, one may ask what is the subtlest level of thought? Can there be any thought more subtle than the thought of the soul and of God, both of whom are the subtlest entities? Further, what is the source of thought? Is it different from the soul which is conscient? Again, is there anything that will expand one’s consciousness more than one’s linking the conscient self with God, who is the most powerful conscient Being? So, the right and the best method would be that asks you to “draw your attention to your conscient self(soul) and then link it with God, the Transcendental Father. This will greatly expand your consciousness and highly energise yourself. And, this is what B.K. Meditation, which is the real Transcendental meditation, does.

It may be noted in this context that the T.M. teachers say that their method does not require any change in the life-style. Thus they give up another important thing—the Yoga ethics, which, in fact, has a very intimate connection with Yoga, for the relaxed state of mind, which even T.M. aims at achieving, becomes a natural state or a state easily accessible if one observes certain moral principles and social norms. If one does not have a life-style which has the elements of simplicity (we are not asking for austerity or penance), vegetarian diet and abstinence from stimulants, intoxicants and pollutants, one will suffer on that count and put obstacles in his own meditational practice. Likewise, if one does not have the elements of humility, co-operation, universal love (in place of attachment to a few or infatuation for someone), etc., one will come into

clash many a time in his life and will then have to seek relaxation. It is like washing your floor and then dirtying it by throwing rubbish on it and then doing the hard job of scrubbing and cleaning it over again!

B.K. system of Meditation has a code of conduct and certain essential principles for a meditator to follow so that he can lead his life peacefully and have purity of mind too and can, besides, have the least difficulty in practising meditation. It has a universal appeal not because it has given up any insistence on the ethical aspect or on spiritual truths but because it gives universal concepts of soul and God, based on logic and rationality and has laid down for the meditators, universally sound higher principles of purity. And, people, both in the East and the West, take to it.

Results of E.E.G. Recordings

Now, there is no instrument or scientific gadget with which we may measure this subjective experience, which we have mentioned above. For example, one's love for God, the qualities of compassion that comes from meditational practice, the spirit of service, the behavioural transformation and such other things cannot be measured or quantified. These can better be known by observation of personal lives, dealings and behaviour of the persons concerned. But there are certain other things, associated with the practice of meditation that can be verified or known through instruments. For, the scientists working on brain functions and consciousness have discovered certain criteria of EEG changes by means of which one can identify or differentiate the states of waking, sleeping, problem-solving or meditating. There are also gadgets which measure changes in other body-functions. It has been found that the brain generates tiny amount of electricity, of the order of thousands of millionths of a volt. The potentials vary with each state—state of sleep, wakefulness etc. and fluctuate in most parts of the brain from every 2 to 3 or even 30 times per second or more.

A machine, called Electro-encephalo-gram(EEG) records these in the forms of wavy curves. In several instances, their mean square amplitude (intensity) and special analysis, i.e. a study of the intensity of the waves at different frequencies is done with the help of a computer. Broadly speaking, it shows four types of rhythms—*Alpha, Beta, Theta and Delta*. *With the help of this instrument, they try to measure the effects of each type of meditation also. This difference is based on two aspects—(i) how many times the waves occur per second, and (ii) what is their voltage. So, let us, first of all, understand, what each one of these four rhythms means.*

Alpha Waves are moderately fast—8 to 13 per second and are relatively high voltage waves. Normally, the EEG records these waves *when a person is awake, has his eyes closed and is in a relaxed, non-attentive state*

and his cerebrum is 'idling' so to say. This state of the brain is, therefore, compared with the idling engine of a car which is ready to run but is not running. It represents the un-occupied, awake brain.

Beta Waves are comparatively faster (13 to 25 per second) but, in amplitude, they are low voltage waves. Beta waves are obtained when *a person is awake, has his eyes open, and is in activated or attentive state*, that is to say, when his cerebrum is not 'idling' but is busily engaged with sensory stimulation and mental stimulation. *When there is light, and because of this, there are conscious efforts on the part of the person, for vision or purposeful mental activity, then this blocks his alpha rhythm* and, in its place, beta waves of 13 to about 30 cycles per second, with a lower voltage, are obtained. This is also called the de-synchronised or activated pattern. In short, this rhythm is present when the brain is in a state of arousal and attention.

Theta Waves are moderately slow (3 to 7 cycles per second), low voltage waves that predominated during drowsiness or during some states of emotionality.

Delta waves are the lowest (0.5 to 3.5 or 4 cycles per second) brain waves and they have a high voltage. *They are recorded when an Individual is in deep sleep.* Because of this fact, the physiologists refer to deep sleep as slow-wave sleep(SWS).

Besides these four rhythms, it would be useful to know about spindles also.

Spindles: While describing the Alpha activity, we had said that this represents state of restful awakening. It should be further noted that this also shows waxing and waning. This is called 'amplitude modulation'. If a line is drawn to join the tops of these waves above and below, it gives the configuration of a spindle. Generally, spindles of this type but with a frequency of about 14 cycles per second are noticed in the early states of the sleep before prominent delta waves appear. In the waking phase of consciousness in some people, Beta-like low-voltage fast-activity is found accompanying rapid eye movements(REMS) in sleep. This is generally accompanied by the dream state.

If the EEG indicates that the cerebrum is producing no brain waves, it is called a *flat EEG* and is considered to mean that the person is dead.

EEG and Meditation

Let us first take up T.M. and the E.E.G. studies done on persons, practising T.M.

Wallace, Benson and Wilson did studies on T.M. Their findings were reported in the American Journal of Physiology in its issue of Sept., 1971. They observed increased intensity of *8 to 9 cycles per second Alpha Waves in the central and frontal regions of the brains of their subjects during T.M. practice.*

In 5 out of 33 subjects, this was accompanied by train of 5 to 7 cycles per second *Theta waves in the frontal region of the brain.*

In three others who felt drowsy at the start of their T.M. practice (when they were being studied), flattening of alpha and the presence of low-voltage, mixed frequency waves, with a prominence of 2 to 7 cycles per second type were noted. This pattern was replaced with regular alpha activity by the end of meditation. *Obviously, these latter subjects had drifted to the sleep state during the slow wave EEG activity (delta and theta waves).* These persons felt relaxed because of short nap which they had during or due to practice of T.M.

G.S.Chhina (of All India Institute of Medical Sciences, New Delhi) and others, also studied EEG of 25 persons, practising T.M. in 1968. Most of these had been personally initiated into T.M. by Mahesh Yogi. He has reported that *eight went to sleep* and showed prominent delta activity. In nine, an increase in the intensity of alpha activity was observed, while the *remaining eight displayed no change* in their E.E.G.s while practising T.M. The comments made about these people are that these eight persons had either not been following the instructions properly or some persons appreciate the practice but are unable to practise.

Another investigator, Banquet, also studied E.E.G. in persons practising T.M. From his computerised spectral analysis, he discovered that there was a constant tendency of the *waves to shift from Alpha* to slow frequencies which *were mostly theta* and mixed-frequency waves, but also sometimes included low and medium voltage delta waves. In fact, there were *swift shifts* from one frequency to another with a brief sequence of Alpha, theta, delta and *return to alpha* waves. Beta and theta were prominent to deep meditation. Alpha waves extended from the parietal and occipital (rear) to the central and frontal areas and frontal Beta diffused towards the posterior region.

Analysis of these results

Now let us know the analysis of the results. Independent investigators have said that these observations suggest that—

- (i) Not all individuals practising T.M. may show identical responses of brain activity.
- (ii) Even within a period of about 20 minutes, the state of mental activity of those who practised T.M. varied considerably. At least three phases are indicated by the observations of Banquet (1973). Wallace and others (1971) also reported variability of the effects in at least eight out of 36 persons. These persons showed light sleep in a part of their practice-time. *Chhina and his associates also observed individuals who went to sleep during T.M.*
- (iii) There were those who showed no change at all.

- (iv) Persons who showed increased amplitude of Alpha waves were mostly those who had been practising T.M. for a long period.
- (v) The E.E.G. readings of those who are affected by the T.M., show a central focus in the brain which drives the activity of the brain. *Investigators are perplexed in what region of the brain could this focus be located.*

From the above analysis, it is clear that T.M. results in a state of relaxation due to passivity of mind and it borders on the state of sleep where-fore some persons actually slip into that state whereas others do have theta waves which are indicative of drowsiness or the borderland between state of awakening and sleep. They do have some delta waves also but soon this gives place to other kinds which shows that this might be due to their effort to return to state of arousal and meditation, wherefore they have Beta and then Alpha Waves.

It may be further noted that a click sound stimulus during T.M. practice blocked the Theta Waves for 1 to 3 seconds.

E.E.G. results of B.K. Raj-Yoga Meditation

Now, let us see the E.E.G. results of practitioners of B.K. Raj-Yoga Meditation.

A number of Brahma Kumaris and Brahma Kumars who have been practising B.K. Meditation for periods, varying from three years to forty-three years were observed during their practice of Meditation. Their studies gave different results. The author of this article has not been able to have the E.E.G. records of all of them to give a thorough analysis. But he has been able to have the E.E.G. and the report of only one subject. Her name is Brahma Kumari Janki. She has been practising B.K. Meditation for the last about forty-four years. The author feels that, in the real sense of the term, her practice of the present method, which is in vogue in this institution, started much later. He is not sure but, in its present form, its practice might have been started about thirty years ago. She is considered to be one of the seniormost Brahma Kumaris and had her first lessons from the Founding Father of the Institution and practised it under their guidance in the earlier years of her practice.

Now as her E.E.G. chart and report suggest, *she had the presence of delta waves (1-3 cycles per second) in all channels and under all conditions, i.e., whether she was talking, doing*



mathematical activity or alphabetical tasks or meditating. The investigator had put to her some mathematical questions for solving, but the result in that case also was the delta waves. She was asked to be 'angry' at one of her 'problem students' or a difficult person. Still she showed delta waves!

As we have mentioned earlier, delta waves occur in the deep sleep but in B.K. Janki's case, the E.E.G. recorded delta waves even when her brain was occupied with problems which required her attention. Further, we have stated already that when a person has state of arousal and his eyes are open, his E.E.G. should show Beta waves but, in her case, this showed Delta Waves even when her eyes were open and her two colleagues were also present and there were other things, like gadgets attached to her, which could have drawn her attention outward. Isn't it wonderful that she showed delta waves even in the state of intense arousal? While, normally, all people, when they have delta waves, go to sleep, she continued to show delta waves! Again, in situations under which a man's E.E.G. shows Beta waves, her's showed 'delta waves'. Other kinds of Meditation, including the Zen system, show Alpha waves when a meditator is relaxed, but in her case, the relaxation was so deep as one gets during deep sleep and still her eyes were open and her brain was alert!

What can be the possible factors?

To the author, this might be due to six factors. One is her withdrawal from the body. If by means of instruments, we measure muscle-tone and her proprioceptive states, it would, probably, indicate this. Another reason seems to be her outlook on life and her philosophy of existence which give her a relaxed state under all conditions. The third might be her righteous behaviour over a long period which gives her mind no cause for disturbance and pricks of the conscience. Another one might be her sense of future security which keeps her mind free of anxiety states. She must be feeling that she has secured a proper stage or status and that her future also is assuredly bright and everything in the present is also O.K. Another factor might be her feeling of fulfillment and the contentment that accompanies it. Moreover, she must have a spirit of surrender to and a lot of love for God Who was the focus of her meditation so that she could meditate with great ease which showed the same delta waves even when she was talking. Now, the presence of these factors cannot be ascertained by means of the E.E.G., but the delta waves in the state of awakening, when a person's eyes are open and her attention is drawn to certain problems, is itself a sufficient proof of the presence of all these factors. Else, how will you explain the presence of delta waves even when she was asked to be 'angry'? Doesn't her graph imply that she couldn't really be angry in the common parlance of the word, i.e. as a common man feels angry. Moreover, how can different results in the case of different persons, practising the same B.K.

Meditation be explained but because of variation of these factors besides their proficiency in the art of meditation?

These E.E.G. recordings and the report and the observations, made by the author (if these are admissible and acceptable) not only show far better results of B.K. Meditation but these also show validity and usefulness of other essential elements of practice of Meditation which were mentioned in the beginning of this article, as for example, the ethics, the philosophical foundations, etc. Without these, Meditation is not 'full' or 'whole' because man's mind which is required to be relaxed or controlled or concentrated or linked to God, has all these dimensions and has, therefore, to be involved on all these counts into the meditational practice. Only the devotion of complete person to Meditation would result in complete benefits which also include the physical, besides the mental and the spiritual. We have given here mainly the mental, which are also, by the way, indicative of the spiritual. We will give the physical benefits in another article some other time.

