Nibbana as Living Experience
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Nibbana \([\text{*nibbaana]}\) is the culmination of the Buddhist quest for perfection and happiness. In order to understand the meaning of this term it is useful to refer to the verse attributed to Kisa Gotami when she saw Prince Siddhattha returning to the palace from the park on the eve of his great renunciation. She declared:

\[
\text{Nibbutaa nuuna saa maataa, nibutto nuuna so pitaa, Nibbutaa nuuna saa naarii, yassaayam iidiso patii.}^1
\]

"Happy/contented/peaceful indeed is the mother (who has such a son), happy indeed is the father (who has such a son), happy indeed is the woman who has such a one as her husband."

\text{Nibbuta} (from \text{nir} + \text{v.r}) is often treated as the past participle of the verb \text{nibbaayati}, and \text{nibbaana} is the nominal form of that verb. It means happiness, contentment, and peace. \text{Nibbaayati} also means to extinguish, to blow out as in the blowing out of a lamp.\(^2\)

Nibbana is so called because it is the blowing out of the fires of greed, hatred, and delusion (\text{raagaggi, dosaggi, mohaggi}).\(^3\) When these fires are blown out peace is attained, and one becomes completely cooled — \text{siitibhuuta}.\(^4\) It is sometimes conjectured that Nibbana is called cool because the Buddha preached in a warm country, where the cool was appreciated as comfortable. Had he taught in a cold climate, he might have described Nibbana in terms of warmth. But it is certain that the term "cool" was chosen to convey a literal psychological
Anger makes us hot and restless. We use expressions such as "boiling with anger," and they clearly express the intensity of the aggressive emotion. When such negative emotions are completely eradicated, never to arise again, the temperament has to be described as cool.

Nibbana is a state to be attained here and now in this very life and not a state to be attained only after death. In terms of living experience Nibbana can be characterized by four special attributes: happiness, moral perfection, realization, and freedom. We shall take these up for discussion one by one.

**Happiness**

Nibbana is described as the highest happiness, the supreme state of bliss. Those who have attained Nibbana live in utter bliss, free from hatred and mental illness amongst those who are hateful and mentally ill. Sukha in Paali denotes both happiness and pleasure. In English happiness denotes more a sense of mental ease while pleasure denotes physical well being. The Paali word sukhā extends to both these aspects and it is certain (as will be shown below) that mental and physical bliss is experienced by one who has attained Nibbana.

The experience of non-sensuous physical bliss for limited periods is possible even before the attainment of Nibbana through the practice of jhaana or meditative absorption.

The Saamaññaphala Sutta describes these physical experiences with the help of eloquent similes. When bath powder is kneaded with water into a neat wet ball, the moisture touches every part of the ball but does not ooze out; similarly, the body of the adept in the first jhaana is drenched and suffused with joy
and pleasure born of detachment from sense pleasures
(*vivekaja.m piitiskha.m*).

The experience in the second jhaana is elucidated with a
different simile. A deep pool filled to the brim with clear cool
water is fed by underground springs, yet the waters do not
overflow and no part of the pool remains untouched by the cool
waters. Similarly joy and pleasure born of concentration
(*samaadhija.m piitiskha.m*) pervade the body of the meditator
in the second jhaana. The simile for the third jhaana is a lotus
born in water, grown in water, fully submerged in water, and
drawing nourishment from water, with no part of the lotus
remaining untouched by the cool water. Thus happiness/pleasure
suffuses, drenches, and permeates the entire body of the adept in
the third jhaana. These are the experiences of non-sensuous
pleasure before the attainment of Nibbana.

On the attainment of Nibbana more refined non-sensuous
pleasure is permanently established. The Ca"nkii Sutta
specifically states that when a monk realizes the ultimate truth,
he experiences that truth "with the body." 10

Regarding the experience of the arahant, the Suttanipaata states
that by the destruction of all feelings/sensations a monk lives
desireless and at peace. 11 Once Saariputta was asked what
happiness there can be when there is no feeling/sensation. 12 He
explained that the absence of feeling/sensation itself is
happiness. 13 It is relevant to note here that the Buddha says that
he does not speak of happiness only with reference to pleasant
feelings/sensations. Wherever there is happiness or pleasure,
that he recognizes as happiness or pleasure. 14

Here we are reminded of the statement that all mental states
converge on feelings. 15 What is meant by this statement seems
to be that all mental states are translated into sensations in the body. It is possible to understand the import of this statement if we pay attention to a gross emotion, such as anger. When we are angry, we experience a variety of bodily sensations: feeling hot, being restless, breaking out in a sweat, trepidation, etc. When we are sad, tears come into our eyes. These are brought about by changes in body chemistry through the discharge of various glandular secretions. If intense emotions bring about such gross sensations, we might conjecture that all thoughts cause subtle sensations in the body resulting from changes in body chemistry. We are hardly aware of these sensations which, however, become noticeable with the development of *vedanaanupassanaa*, contemplation of sensations.

Thoughts are endless and continuous; therefore, if this interpretation that thoughts are translated into sensations is correct, sensations too should be endless and continuous. The Vedanaasa.myutta states that just as diverse winds constantly blow in different directions, numerous sensations pass through the body.\(^{16}\)

An arahant has full control over his thoughts;\(^ {17}\) therefore, he must have full control over his feelings/sensations too. What is meant by the statement that "a monk lives desireless and at peace by the destruction of all feelings/sensations" seems to be that he has destroyed all psychogenic feelings/sensations. This leads us to another statement: that all feelings/sensations partake of the nature of suffering.\(^ {18}\) In order to understand the significance of this statement, we must pay attention to our postures. If we have to remain seated for some time, say for an hour, we are not even aware of how many times we shift and adjust our limbs to more comfortable positions. This happens
almost mechanically, as all the time we unconsciously seek to avoid discomfort. This is because monotony of sensations, even pleasant sensations, brings about discomfort and a change brings about a temporary sensation of comfort. If there were no sensations produced from within, perhaps we would not need to change positions so often, and we would have a running sense of ease even if we continued to remain in the same position for a long time.

Here it might be asked whether an arahant has lost the ability to feel pain, which is also an essential part of the touch sensation. It has to be pointed out that this is not so, for in that case an arahant would not even know if a part of his body is seriously injured or burnt.

There is plenty of evidence to show that an arahant does feel sensations caused by physical changes. For instance, the Buddha felt acute pain when he was wounded by a stone splinter and when he suffered from indigestion. But he was able to withstand the painful sensations with mindfulness and clear comprehension without being fatigued by them.

Again, an experience of Saariputta throws light on the subject. His experience refers to events which modern psychology designates as "non-ordinary reality of altered states of consciousness." A yakkha, a malevolent spirit, once gave Saariputta a blow on the head. The blow, it is said, was so powerful that it was capable of splitting a mountain peak or making a seven and a half cubit high elephant go down on its knees. Moggallaana, who saw the incident with his divine eye, inquired from Saariputta how he was feeling. He replied that he was all right, but there was slight pain in the head. This shows
us that a blow which could have deprived an ordinary person of life had only minimal impact on an arahant.

Perhaps because the psychological factors which predispose a person to the experience of sensations are perfectly well under control in an arahant, he experiences only those sensations that are felt purely physically by an animate organism. It seems as if the body is under some sort of mentally regulated anesthesia which allows a narrow margin of sensation to protect the body from external danger. There are two kinds of pain, physical and mental, and arahants are said to experience only physical pain without the anxious mental agony when experiencing physical pain.

It is also possible to look at this issue from another angle. Though the texts state that vedanaa is destroyed in the arahant, they never say that the sense faculties are destroyed. When describing the super-conscious state of sa~n~na-vedayitanirodha, the sense faculties are said to be refined — vippasannaani indriyaani. So in the case of the arahant, too, the sense faculties must certainly be refined and not rendered deficient in any way. In that case it is possible to surmise that, though vedanaa is extinct, body-sensitivity continues to be active and is thoroughly refined.

The Vedanaasa.myutta differentiates between three types of joy and pleasure:

* Saamisaa piiti saamisa.m sukha.m : joy and pleasure stimulated by sense objects, e.g. worldly sense pleasures.
* Niraamisaa piiti niraamisa.m sukha.m : Joy and pleasure free from stimulation by sense objects, e.g. jhaanic experiences.
An arahant experiences both physical and mental bliss (*so kaayasukham pi cetosukham pi pa.tisa.mvedetī*) as all tensions (*darathaa*), torments (*santaapaa*), and fevers (*pari.laahaa*) have been completely eliminated for good.26

Bhaddiya was a monk who often exclaimed "What happiness, what happiness!" (*aho sukha.m aho sukha.m*). This expression of joy was misunderstood by his less developed fellow monks and they reported the matter to the Buddha, suspecting that Bhaddiya was often reminiscing about his lay comforts. On being questioned by the Buddha Bhaddiya explained that he was a prince in his lay life and that he had armed guards stationed in all strategic points within and without his palace, yet still he suffered from insomnia and insecurity, fearing that rivals might usurp his position and even deprive him of his life. But now, though living all alone in the open air, he is completely free from fear and anxiety. Therefore, to express his happiness, he frequently exclaimed: "What happiness, what happiness!"27

So great was the experience of joy on the attainment of release from all mental intoxicants (*aasavakkhaya*) that sometimes arahants have stayed in that same position continuously without moving for seven days enjoying the bliss of emancipation.28 It is said that the whole body was permeated with this joy and bliss.

Thus there are various passages in the Paali Canon which record the experience of bliss in the attainment of Nibbana. But it appears that this bliss is not confined to or dependent on the five
aggregates which constitute the individual. For the Dvayaataanupassanaa Sutta maintains that suffering (dukkha) ceases to arise with the cessation of the five aggregates. Further, it is said in the Alagadduupama Sutta that the perfected being (tathaagata) cannot be identified with any of the five personality factors even while he is still alive.

Moral Perfection

Nibbana is a state of moral perfection. For one who has attained Nibbana, all unwholesome motivational roots such as greed, hatred, and delusion have been fully eradicated with no possibility of their ever becoming active again. Therefore Nibbana is called the destruction of greed, hatred and delusion (raagakkhaya, dosakkhaya, mohakkhaya). All inflowing moral depravities are destroyed, hence the epithet aasavakkhaya for Nibbana. Craving has been uprooted for good, therefore ta.nhakkhaya is another synonym. All types of conceit, the superiority and the inferiority complex plus the complex of equality (seyyamaana, hiinamaana, and sadisamaana), are eliminated. This necessarily has to be so as an arahant has no egoistic delusions such as I and mine.

Just as much as an arahant has transcended egoism, he has transcended sexuality too. When Somaa, a female arahant, was rebuked by Maara the Evil One, saying that womankind with very little intelligence cannot attain that state which is to be attained with great effort by seers and sages, Somaa replied that womanhood is no impediment for the realization of truth to one who is endowed with intelligence and concentration. Further, she adds that Maara must address these words to one who thinks "I am a man" or "I am a woman" and not to one like herself.
This reply seems to imply that one loses even sexual identity on the attainment of arahantship.

There is evidence that an arahant has undergone such transformation in body chemistry that he has gone beyond the dichotomy of masculinity and femininity. All normal physiological sexual functions seem to be atrophied in an arahant as it is said that seminal emission is impossible for an arahant even in sleep.32 We may also note the tradition maintaining that arahants never dream,33 maybe because they have attained such perfect mental health that there is no necessity to release tension through dreams.

The sublime modes of conduct (brahmavihaara) such as loving-kindness, compassion, sympathetic joy, and equanimity (mettaa, karu.naa, muditaa, upekkhaa) are fully developed without any limitations. An arahant is such a perfect being that it is simply impossible for him to commit an immoral act. He is incapable of wilfully destroying the life of a living creature. It is impossible for him to stoop so low as to steal something, to indulge in sex, to utter a deliberate lie, or to enjoy accumulated goods as in the household life.34 One may wonder why household life is an impossibility for an arahant. The reason may be that the household is recognized as a fortress of greed where we deposit all our belongings; it is, in other words, the external repository of our ego. An arahant, who has fully transcended the ego, is incapable of partaking of such an institution.

**Realization**

Several expressions are used in the Paali Canon to denote the cognitive aspect of the experience of Nibbana. "The mass of darkness (of ignorance) has been torn asunder"
(tamokkhandham padaalita.m) 35 is a frequent expression. In his First Sermon the Buddha describes the realization of the Four Noble Truths as the arising of the eye, wisdom, insight, knowledge, and light.36 "The three knowledges have been attained" (tisso vijja anuppattaa) is another expression.37 The triple knowledge consists of retrocognition (pubbenivaasanussati-naa.na), clairvoyance (dibbacakkhu), and the knowledge of the destruction of defilements (aasavakkhaya-naa.na). With the first two knowledges one obtains personal verification of the doctrines of rebirth and kamma respectively. With the destruction of intoxicants one realizes the causal origination of all phenomena and egolessness.38 Sometimes, three other cognitive faculties (abhi-n-naa) are mentioned as extra qualifications of arahants, namely, miraculous powers (iddhividha), the divine ear (dibbasota), and telepathy (cetopariya-naa.na).39 With the attainment of Nibbana one also realizes that birth is destroyed, the higher life has been successfully lived, one's duty has been done, and there is no more of this (mundane) existence.40

The Uddesavibha"nga Sutta explains the nature of consciousness and the general cognitive attitude of an arahant:41

* The consciousness of an arahant is not scattered and diffused in the external world (bahiddhaa vi~n~naa.na.m avikkhitta.m avisa.ta.m); this becomes possible because he does not indulge in the enjoyment of sense objects.

* His consciousness is not established within (ajjhatta.m asa.n.thi.ta.m): this is possible because he does not become attached to the enjoyment of the jhaanas.
* He remains unagitated without grasping (*anupaadaaya na paritassati*): this means that he does not identify himself with any of the five aggregates or personality factors.

The Mahaasalaayatanika Sutta explains more fully the cognitive experience of an arahant from the angle of sense experience.42 The arahant realistically understands the nature of sense faculties, sense objects, sense consciousness, sense contact established by the convergence of these three factors, and the resulting sensations of pleasure, pain, and hedonic neutrality. He does not get attached to any of these factors. When he lives without deriving pleasure and without getting attached to perceived sense objects and without being deluded by the process of sense perception, recognizing the evil consequences of sense perception, the five aggregates of grasping or the personality factors do not get built up. They fall apart, as craving which leads to rebirth is totally eliminated. All physical and mental tensions (*daratha*), torments (*santaapa*), and fevers (*parilaaha*) are destroyed. The arahant experiences perfect physical and mental bliss.

We are not quite sure exactly what is meant by the realistic understanding of the nature of sense faculties, but we might suppose that an arahant intuitively understands, through the framework of his own personality, how the sense stimuli pass through sense receptors and nerve fibers and are interpreted at brain centers. Modern science explains to a certain extent the physiological processes involved in the activity of sense perception, but this understanding is confined at best to the intellectual level and is dependent on technological devices in medical laboratories. Such knowledge cannot bring about the attitudinal and emotional changes which are necessary for
liberation. An arahant's understanding springs from a deeper experiential level with direct vision into the whole perceptual process as explained, for instance, in the Madhupi.n.dika Sutta.43

What is meant by the realistic understanding of sense objects? Most likely it is the realization of the impermanent, unsatisfactory, and non-substantial nature of all that is around us. This too is a direct profound experience of acute sensitivity, a direct personal vision into the dynamism of atomic and sub-atomic particles that go to form the material world around us as well as our bodies.

The Dhammapada records that when a monk sees in his contemplations the dynamic working of the physical and mental phenomena composing his own personality, great joy arises in him, and that can only be described as superhuman joy.44 One has direct insight into the inner workings of one's body, the arising and passing away of body cells, sensations, perceptions, activities, and consciousness. Great is the joy and delight of this realization, and it is the realization of deathlessness.45 This is what is called the "bliss of enlightenment" (sambodhisukha).

**Freedom**

All bonds which tie us down to suffering are torn asunder; thus Nibbana is called sa.myojanakkhaya .46 As the arahant has complete mastery over his thoughts (cetovasippatta),47 no recurring unhealthy thoughts obsess him. Negative emotions restrict an individual's psychological freedom; therefore, greed, hatred, and ignorance are described as pamaa.nakara.na, i.e. they circumscribe an individual's freedom.48 Greed, hatred, and
ignorance are roots of unwholesome mental states which fetter the individual within sa.msaara.

There is an interesting simile which illustrates the nature of a fetter. If there are a white bull and a black bull tied together by a rope, the question is asked, whether the white bull is a fetter to the black bull or the black bull is a fetter to the white bull. In fact, neither is a fetter to the other; the fetter is the rope by which they are tied together. Similarly, the desire we have for external objects is the fetter that binds us. The arahant has cut this off and attained freedom.

Unhealthy negative emotions are always self-oriented and self-centered. The Dhammapada says that the fool laments, "He abused me, he beat me, he defeated me, he robbed me," and generates anger. As he is firmly tied to the idea of the self or the ego, and he cannot wean himself away from the experience which inflicted a wound on his ego, he is like a dog tied to a post.

This situation is quite in contrast to an experience the Buddha had once. A brahman came and abused him in very harsh language. The Buddha remained silent. When at last the brahman stopped, the Buddha asked: "If you were to visit a friend and you took a gift to him, but the friend declined to accept the gift, what would you do?" The brahman replied that he would take it back. The Buddha said: "You brought me a gift of much abuse, I do not accept; you can take it back."

The Buddha also states that even if one is cut into pieces with a double-handled saw, one should train oneself not to generate anger towards the tormentor. Moggallaana was an arahant who was mercilessly beaten by robbers but he was able to maintain his composure without a trace of anger. Such is the
freedom one gains from negative emotions on the attainment of Nibbana.

An arahant has fully developed the brahmavihaaras, the sublime modes of conduct — universal love, compassion, sympathetic joy, and equanimity. These positive qualities are generated by transcending the self and are described as all-embracing and immeasurable (appamaa.na). Thus they do not limit the scope of psychological freedom as do the mental states rooted in greed, hatred, and ignorance (pamaa.nakara.na). The freedom won by an arahant is called cetovimutti and pa~n~naavimutti, release of mind and release through wisdom. Knowledge also arises in the meditator that freedom has been gained (vimuttasmi.m vimuttam iti ~naa.na.m hoti). This is called the "bliss of emancipation" (vimuttisukha), the highest bliss that any human being could enjoy.

**Creativity**

Creativity is another aspect under which the achievement of an arahant can be fruitfully discussed. The virtues of the arahant can be succinctly summarized as karu.naa and pa~n~naa, compassion and wisdom. These are the two qualities through which the creativity of the arahant finds expression. When arahants look at humanity, they are moved by great compassion as they fully realize the gravity of the precarious condition of the worldlings. Therefore, they willingly plunge into a life of selfless activity, preaching to the people, trying to show them the path leading out of misery to eternal peace. It is especially noteworthy that the Buddha's role as teacher was so demanding that he barely slept two hours a day. The body of discourses he gave during the course of his long ministry of forty-five years is as profound as it is extensive. It stands preeminent in world
literary history for originality of ideas, profundity of thought, and clarity of expression. These observations hold good for the discourses delivered by the arahants as well. The entire Pāli Canon can be considered as testimony to the creative genius of the liberated beings. It is but natural that creativity finds spontaneous expression when a person attains liberation, as all negative emotions which hinder creativity and distort spontaneity are totally eliminated in the arahant.

Some arahants are endowed with the special accomplishment of the fourfold analytical knowledge (pātisambhidā ~ naa.na), which qualifies them even more thoroughly for creative work.54 These are spelt out as analytical knowledge of the meaning or goal, profound truth, language or the medium of communication, and originality of expression (attha, dhamma, nirutti, pātibhaana). These four special qualifications make arahants experts in communicating to their audience the exact meanings and goals of the profound truths they have discovered, through the medium of refined language, using their own original modes of expression such as eloquent similes, metaphors, etc. Several arahants, both male and female, are recorded as eloquent speakers and erudite exponents of the Dhamma.55 Special mention must be made of the Theragaathaa and Theriigaathaa, which comprise poems of exquisite beauty. They are utterances of monks and nuns embodying their varied experiences. Literary critics rank them among the best lyrics in Indian literature.56 They remain unrivalled in the literary history of the world as creative writing issuing forth from the undefiled purity of the human heart and the nobility of human wisdom. They are ever-fresh fountains of inspiration to the truth-seeker and lasting monuments to the creative genius of the liberated beings.
Physiology and Spirituality

Having considered this traditional material from the Paali Canon, let us now turn to modern studies on psycho-physiology and meditation to see whether we can draw some inferences from them on the experience of Nibbana.

Studies done by investigators such as Walter B. Canon show beyond doubt that there is a definite correlation between physiology and strong emotions. When a sensory trunk is strongly excited the adrenal glands are reflexly stimulated and they pour into the blood stream an increased amount of adrenalin. This gives rise to the overt manifestation of bodily changes such as dilation of the pupils, sweating, rapid respiration, etc. There are other physiological changes such as those in heart beat, blood pressure, blood volume, electrodermal responses, etc. But they are not quite useful for us as they cannot be related to material found in the Paali Canon. The logical inference is that if strong negative emotions can give rise to certain physiological changes in the body, changes which may be described as unhealthy, the cultivation of positive emotions too should give rise to physiological changes which are quite different from those stimulated by negative emotions.

As opposed to the dilation of the pupils and a consequent look of ferocity in the instance of a strong emotion such as anger, we find in the Paali texts mention made of the monks' eyes as being very pleasant. The monks, it is said, look at one another with amiable eyes and they mix with one another as milk and water blend. This feature was conspicuous enough to draw the attention of the intelligent public; for example, King Pasenadi Kosala cited the pleasing expression in the eyes of the monks as
one of the special characteristics which convinced him that they possess purity of heart and spiritual maturity.

The complexion or facial expression of the monks is also mentioned as an impressive feature indicating the height of spirituality attained. The bright clear complexion or serene facial expression\(^{62}\) attracted the attention of many observers and inspired their confidence in the Dhamma. For instance, Saariputta was impressed by the bright countenance and the serene appearance of the monk Assaji, and that was the starting point of his conversion.\(^{63}\) King Asoka's conversion to Buddhism was prompted by the outward appearance of the novice Nigrodha.\(^{64}\) The spotlessly pure bright complexion of the Buddha was counted as one of the thirty-two marks of a great man and these marks are considered the outward manifestations of profound spiritual maturity.\(^{65}\)

As sweating is one of the physiological manifestations of emotional excitement, there is an interesting incident from the life of the Buddha relevant for our present study. Once Saccaka, a redoubtable debater, came for a debate with the Buddha. He boasted that he would harass the Buddha in debate as a strong man would shake a goat to and fro while holding it by its long beard. Arrogantly he bragged that he could see no man who would not break out in a sweat when challenged by him in debate. But when the debate with the Buddha was actually held before a large audience it was Saccaka who sweated profusely in defeat. The Buddha bared his chest and showed that he did not sweat at all.\(^{66}\) This episode may be taken as evidence that an arahant does not perspire due to emotional excitement.

Rapid respiration is another physiological accompaniment of negative emotions. Changes in breathing rhythm or amplitude
are considered excellent indicators of deception. It is a commonplace experience that respiration remains calm and placid when we are quiet and resting. It becomes even calmer in meditation.

The Paali Canon maintains that respiration ceases altogether during the fourth jhaana, which is a subtle, highly refined state of superconsciousness. It is possible that metabolism comes to a standstill or a minimum level during this state. Though arahants do not always abide in this jhaana, they must constantly maintain a calm regular rhythm in their respiration, for they never become emotionally disturbed or excited. Their calm is so profound that it is said that they also maintain an inner silence even when they speak, as the sub-vocal chatter which is characteristic of others has been quelled altogether in their case.

Modern scientific studies on the physiology of meditation shed light on some other aspects relevant to the present study. It has been found that the concentration of blood-lactate level declines precipitously in meditation. Its concentration normally falls in a subject at rest but the rate of decline during meditation has proved to be more than three times faster than the normal rate. This offers a good contrast to the rise of blood-lactate levels when patients with anxiety neurosis are placed under stress. It is also reported from experiments that the infusion of lactate brings about attacks of anxiety in such patients. Furthermore, it is significant that patients with hypertension (essential and renal) show higher blood-lactate levels in a resting state than patients without hypertension, whereas in contrast, the low lactate level in meditators is associated with low blood pressure. Thus it is clear that the fall in the blood-lactate level has a beneficial
psychophysiological effect. All this medical evidence goes to show that a calm healthy mind finds expression in a positively transformed body chemistry. Therefore, it is reasonable to maintain that one who has reached the culmination of meditative practice and realized Nibbana is healthy in both mind and body.

The body has certain electrical properties that are clearly associated with psychological processes such as attention and emotion. One of these is shown in the rapid rise in the electrical resistance of the skin accompanying meditation. Wallace and Benson report that fifteen subjects tested showed a rise of about 140,000 ohms in 20 minutes. In sleep, skin resistance normally rises, but not so much or at such a rate. The same test is used in lie detection, and most laboratory studies have found that the skin resistance response is the best indicator of deception. This evidence shows beyond doubt that involuntary physiological changes accompany emotional states both positive and negative.

Again it is said that the brain is constantly emitting small electrical potentials measured in cycles per second called Hertz (Hz). These waves of varying frequencies and shapes are labelled with Greek letters such as delta waves (less than 4 Hz), theta waves (4-7 Hz), alpha waves (8-13 Hz), and beta waves (greater than 4 Hz). Electro-encephalographic recordings of subjects in meditation have disclosed a marked intensification of alpha waves. Wallace and Benson report that they recorded the waves from seven main areas of the brain on magnetic tape and analyzed the patterns with a computer. They say that typically there was an increase in intensity of slow alpha waves at eight or nine cycles per second in the frontal and central regions of the
brain during meditation. In several subjects this change was also accompanied by prominent theta waves in the frontal areas. On the other hand, emotional disturbance such as anger is always accompanied by alpha blocking; whereas, sleep, "the antithesis of emotion," is characterized by slow high-amplitude activity. Light and sound stimuli also block the alpha rhythm. It is reduced or suppressed during periods of apprehension. Alpha waves are absent in records of patients in an anxiety state. On the strength of these findings, it is possible to conjecture that the harmony of the mind determines to a very large extent the health of the body.

When related to the experience of Nibbana it seems reasonable to conjecture that an arahant has put an end to all psychosomatic diseases. His body would be susceptible only to physical ailments and injury caused by external agents. There are reports in the Paali Canon of arahants falling ill and experiencing acute pain. It is also noteworthy that they are said to have recovered by meditating on the Dhamma. On the strength of the evidence furnished so far, one is inclined to regard their illnesses as being caused by physiological factors. There is also an incident of a monk who is not an arahant dying of snakebite. The Buddha says that if the monk had practiced mettaa fully he would not have met with such an unfortunate death. It may be that the snake would not have bitten him in the first place had mettaa been fully cultivated. On the other hand, there is another commentarial episode where a non-arahant monk was bitten by a poisonous snake while he was listening to the Dhamma. The poison started spreading in the body and the pain became acute. The monk then reflected on the immaculate purity of his virtues from the time he received higher ordination. It is said that, as a
result of this reflection, great joy arose in his mind suffusing his entire body. The joy acted as an anti-venom and he was cured.

Meditation is described in psychophysiological terminology as a "wakeful hypometabolic" state characterized by: "reductions in oxygen consumption, carbon dioxide elimination, and the rate and volume of respiration; a slight increase in the acidity of arterial blood; a marked decrease in the blood-lactate level; a slowing of the heart beat; a considerable increase in skin resistance; and an electro-encephalogram pattern of intensification of slow alpha waves with occasional theta-wave activity."84 It may be surmised that the metabolism during normal waking hours is probably maintained at the lowest possible healthy level in the case of the arahant, as his body is not subject to undue wear and tear brought about by emotional excitement. The positive refined sublime emotions or the divine modes of conduct (brahmavihaara) such as mettaa, karu.naa, muditaa, and upekkhaa, not to speak of the higher cognitive states, must necessarily find expression in body chemistry to produce a healthy constitution and a calm, unruffled, serene personality filled with peace, contentment, and the joy of enlightenment (sambodhisukha).

We are reminded here of a statement the Buddha once made. He said that even if there is a portion as small as a pinch of dust that defies change in the psychophysical personality of the human being, leading the higher life (brahmacariya) would be useless.85 What is meant is that there is no such permanent part and the higher life can successfully bring about a total transformation of the individual in both mind and body. Modern scientific studies on the physiology of meditation prove that basic biochemical and bioelectrical changes do take place in the
body as a result of mental culture. It is therefore possible to surmise that mental culture culminates in a total psychophysical transformation.

Studies done on the bio-feedback technique suggest that a radical transformation of the nervous system must take place with the development of higher mental potentialities. It is common knowledge that the autonomous nervous system is divided into two parts, the sympathetic nervous system and the parasympathetic nervous system. Johann Stoyva, in an article on bio-feedback techniques, states that probably in deep relaxation there is a shift in the autonomous nervous system towards parasympathetic dominance. Parasympathetic functioning is associated with subtler emotions — wonder, religious and aesthetic experiences, contemplation — emotions characterized by a broader range of awareness. On the other hand, sympathetic predominance is linked to emotions in which the range of awareness is restricted — anger and fear, for example. On the strength of this evidence it may be conjectured that parasympathetic functioning develops to greater efficiency with spiritual advancement.

Very little is known about the functions of the pineal gland, which Renè Descartes regarded as the chosen residence of the human soul. It is described as the built-in biological clock of the human being on which depends the regularity of sleeping and waking. This gland synthesizes a hormone called melatonin which affects behavior, sleep, brain activity, and sexual activity such as puberty, ovulation, and sexual maturation.

While melatonin stimulates brain activity, it inhibits sexual activity. Again it has been recognized that light/dark, olfaction, cold, stress, and other neural inputs affect the pineal function.
Exposure to light reduces the synthesis of melatonin and depresses pineal weight. On the other hand, light accelerates sexual maturation and activity.

In the context of Buddhist thought the function of the pineal gland seems to be the biological basis of sense control. Buddhism maintains that unrestrained sense stimulation disturbs mental activity. If the sense doors are well guarded, i.e. if visual, auditory, olfactory, gustatory, and tactile inputs are controlled, a corresponding degree of happiness (avyaasekasukha) and concentrated mental activity become possible. \( ^92 \) Cittass'ekaggataa, the ability to fix the mind on one point, is greatly determined by the control of the sense faculties. In terms of physiology it seems that such sense control helps the synthesis of melatonin in the pineal gland which stimulates brain activity and retards sexual activity. Thus in terms of pineal function, brain activity and sexual activity seem to be antithetical. Buddhism, too, emphasizes that sexual desire prevents clear thinking, distorts vision, clouds issues, inhibits wisdom, and destroys peace of mind. \( ^93 \)

The entire scheme of spiritual development comprising the Noble Eightfold Path is an efficient methodical plan of action designed to bring a gradual psychophysical transformation culminating in the attainment of Nibbana. Cultivation of moral habits (siila) is the frame for wholesome behavior by means of which healthy body chemistry gets gradually established. Neural circuits related to harmonious physical and vocal activity are strengthened and those related to violence become proportionately weak. The second phase in the development of the Noble Eightfold Path comprises meditation. A steady rapid psychophysical development takes place during this phase. It is
our conjecture that the adrenalin secretion which accompanied negative emotions of rage and fear is reduced to a healthy, workable level. Perhaps adrenalin is secreted in small quantities into the blood stream to maintain an unflagging enthusiasm to continue in the difficult practice of meditation with undaunted courage and perseverance. Or it may be, as the endocrine glands stimulate or inhibit one another, a balanced combination of these glandular secretions affects the cognitive and emotional behavior of the meditator.

When sublime modes of conduct such as *mettaa, karu.naa, muditaa*, and *upekkhhaa* are practiced over and over again, they must become ingrained in the nervous system, perhaps increasing parasympathetic dominance. With the practice of *vipassanaa* or insight-meditation, the pineal gland seems to develop its full bodily potential for unlocking all possible spiritual knowledges in the meditator's mind and when the process is complete Nibbana is attained.

This interpretation finds further support in the Buddhist conception of the reciprocal relationship between *vi~n~naa.na* and *naamaruupa*. This relationship is illustrated in the Canon with the simile of two bundles of reeds placed together supporting each other. A change of position in one is bound to make a corresponding change in the other. Thus psychological development affects physiological function, apparently through the activity of the nervous system and the endocrine glands. Healthy physiological changes reinforce healthy psychological activity. Thus the process of mutual psychophysical interaction works for the happiness or misery of the individual depending on the moral quality of the actions performed through body, speech, and mind. As the mind is involved in all activity, it is the
mind that is responsible for the quality of body chemistry and neural function.

When the mind ultimately attains to a state of absolute purity beyond corruptibility, body chemistry and neural function undergo a radical transformation which will not be reversed again. It can be conjectured that when the pineal gland and its auxiliaries develop to the fullest possible capacity, the hitherto inactive brain regions unlock their secrets and reveal them when attention is directed accordingly. Thus memory becomes so efficient as to revive prenatal knowledge running into numerous previous existences. Similarly, the divine eye, or clairvoyance, is clarified, disclosing the kammic antecedents of human experience. When one gains direct vision and knowledge of the bodily and mental processes involved in the human personality one attains supreme enlightenment.

The Avyaakatas

The state of Nibbana after the death of the arahant is nowhere discussed in the Paali Canon. The four alternatives put forward regarding this state, namely: Does the Perfect One exist after death, does he not, does he and does he not, does he neither exist nor not exist after death, are all left aside unanswered. These questions are put aside because they are not useful to human happiness and understanding, not concerned with the Dhamma, not helpful for the higher life, not conducive to disenchantment and detachment, not conducive to cessation of misery, to tranquillity of the mind, to higher knowledge, to insight, and to peace (Nibbana).94

The Aggivacchagotta Sutta cites a simile in this connection which illustrates that the questions themselves are
meaningless. If there is a fire burning and if the fire goes out without fuel, can one ask the question: "In which direction did the fire go, east, south, west, or north?" The question itself is inappropriate as it assumes that fire can have existence independent of fuel. The nun Khemaa points out that the state of the Tathaagata after death is immeasurable. Just as it is impossible to calculate the drops of water in the ocean and the grains of sand in the earth, so is it impossible to conceptualize the state of Nibbana after the demise of the arahant. The Anuraadha Sutta states that the five aggregates of grasping, or the personality factors, are impermanent, unsatisfactory, and non-self. Therefore the noble disciple is detached from them. He wins freedom, and after death becomes completely untraceable. The Alagadduupama Sutta maintains that the Tathaagata cannot be identified with the personality factors even during his lifetime, so how can he be identified after death? A plausible explanation is necessary for the traditional silence regarding the state of the arahant after death. Existence in the world implies time and space. One exists within a particular period in a particular space or locality. If one passes beyond time and beyond space, it is not possible to speak of existence with reference to such a one. To speak of both time and space one needs a point of reference, e.g. A is 50 years old. This means 50 years have passed since the event of A's birth. If A is not born, it is impossible to speak of "time" or existence with reference to him. Similarly with space. Without points of reference it is not possible to grasp space. There is a definite distance between any two specific points. Nor can one speak of direction without a point of reference. When the notion of "I," which is the point of personal reference, is eradicated, one goes beyond time, beyond space, and beyond causality. Therefore it is
not possible to speak of the liberated being as existing or not existing.

Here we are reminded of a statement made by Fritjof Capra in his *Tao of Physics* relevant to our present context. He states: "Physicists can 'experience' the four dimensional space-time world through the abstract mathematical formalism of their theories, but their visual imagination, like everybody else's, is limited to the three-dimensional world of the senses. Our language and thought patterns have evolved in this three-dimensional world and, therefore, we find it extremely hard to deal with the four-dimensional reality of relativistic physics." 99

Thus, when the four-dimensional reality too eludes the perceptual experience of the average man, how can Nibbana, which transcends all these four dimensions, come within mere verbal experience? Therefore it is impossible to speak of the arahant's state in terms of existence or non-existence.

At this point, an observation can be made from another point of view. Buddhism describes the characteristics of all things in three statements: *Sabbe sa"nkhaaraa aniccaa, sabbe sa"nkhaaraa dukkhaa, sabbe dhammaa anattaa*, meaning all conditioned things are impermanent, all conditioned things are unsatisfactory, all phenomena are non-self. 100 Here the change of terminology in the last statement seems important. The Sa.myutta Commentary explains the last statement as: *Sabbe dhammaa anattaa ti sabbe catubhuumakaa dhammaa*. 101 The *Visuddhimagga* explains the four *bhuumis* or planes as *kaamaavacara, ruupaavacara, aruupaavacara*, and *lokkuttara*, meaning the sensual sphere, the fine-material sphere, the immaterial sphere, and the supramundane. 102 Therefore
*dhammaa* in our statement can be interpreted as including the supramundane state of Nibbana as well.

Commenting on this statement Ven. Narada Thera observes: "*Dhammaa* can be applied to both conditioned and unconditioned things and states. It embraces both conditioned and unconditioned things including Nibbana. In order to show that even Nibbana is free from a permanent soul the Buddha used the term *dhammaa* in the third verse. Nibbana is a positive supramundane state and is without a soul."103 It is significant that *dhammaa* was not used in the first two statements. The purpose seems to be to exclude Nibbana which is permanent and blissful. Therefore we can surmise a condition that is permanent and blissful, but it is not a self. That state is Nibbana. It has to be a dimension completely different from all that is worldly. The permanence that is conjectured here has no reference to time and space, and the bliss that is spoken of has no reference to feelings, *vedanaa*.

Further, there is a great difference between the death of an ordinary worldling and that of an arahant. To indicate this, a different terminology is used: *mara.na/miyyati* is used for the death of a worldling, while *parinibbaana/parinibbaayati* is used in the case of an arahant. In fact the Dhammapada specifically states that the vigilant ones, meaning arahants, never die (in the ordinary sense of the word).104

Let us first see what happens when a worldling dies. It is an accepted fact that everybody fears death.105 We also fear the unknown; therefore, death is doubly fearful because we know least about it. It seems reasonable to assume that at the root of all fear there lurks the fear of death. In other words, we fear everything which directly or indirectly threatens our life. So
long as our bodies are strong enough, we can either fight or run away from the source of fear, with the intention of preserving life. But when ultimately we are on the deathbed face to face with death and our body is no longer strong enough to flee from death, it is highly unlikely that we will mentally accept death with resignation. We will struggle hard, long for and crave for life (ṭañha), and reach out and grasp (upaadaana) a viable base somewhere as the dying body can no longer sustain life. Once such a viable base, for instance a fertilized ovum in a mother's womb, has been grasped, the process of becoming or growth (bhava) starts there, which in due course gives rise to birth (jaati). This is what is referred to in the twelve-linked pa.ticcasamuppaada as "craving conditions grasping, grasping conditions becoming, becoming conditions birth." 106 Thus a worldling dies and is reborn.

Now let us consider the last moments of an arahant. As an arahant has no fear whatsoever from any source (akutobhaya), he would not be agitated (na paritassati) as he has no craving for life. 107 He will watch the process of death with perfect equanimity and crystal-clear mindfulness. 108 Further, the Mahaaparinibbaana Sutta, which explains the final moments of the Buddha, states that the Buddha passed away immediately after rising from the fourth jhaana. 109 The fourth jhaana is characterized by purity of equanimity and mindfulness. 110 It is not known whether all arahants attain parinibbaana after the fourth jhaana, but certainly they cannot have a deluded death. 111 As they do not grasp another birth the state they attain after final passing away has to be described as unborn (ajaata). Similarly it is uncaused (asa"nkhata). 112 As it is no ordinary death, it is called the deathless state. 113 It is beyond elemental existence, beyond brahmalokas, neither in this world nor the
next, beyond the radiance of the sun and moon. It is beyond what we know of in the three worlds of *kaama, ruupa, and aruupa*. Therefore, as it is beyond the ken of ordinary human understanding, any attempt to define the state is bound to end in failure. The course of liberated ones cannot be traced like that of birds in the air.

Notes

1. S IV 19.
2. *Nibbantii dhīraa yathaaya.m padiipo*: Sn 235.
4. Sn 542, 642.
7. *Nibbana.m parama.m sukha.m*: Dh 203.
10. *Kaayena c'eva paramasacca.m sacchikaroti*: M II 173.
Vedanaana.m khayaa bhikkhu nicchaato parinibbuto: Sn 739.


13. Etad eva khv'ettha sukha.m yad ettha n'atthi vedayita.m.

14. S IV 228.


17. Cetovasippatta: A II 6, 36.

18. Ya.m ki~nci vedayita.m ta.m dukkhasmin ti: S IV 216.


20. D II 127.


22. Kaayika~n ca cetasikaa ca: S IV 231.

23. Arahaa eka.m vedana.m vediyati kaayika.m na cetasikan ti: Miln 253.

24. M I 296.

25.
S IV 235.


27. ThagA III 52.

28. *Piitisukhena ca kaaya.m pharitvaa vihari.m tadaa /
Sattamiyaa paade pasaaresi.m tamokkhandha.m padaaliya*:
Thig 274.


30. M I 140.

31. S I 129.

32. *A.t.thaanam eta.m anavakaaso ya.m arahato asuci
muceyyaa ti* : Vin I 295.


34. M I 523.

35. Thag 128.

36. *Cakkhu.m udapaadi ~naa.na.m udapaadi pa~n~naa
udapaadi vijjaa udapaadi aaloko udapaadi* : S V 424.

37. M II 105.

38. M I 55.
40. *Naapara.m itthattaayaa ti pajaanaati*: M I 67.
41. M III 223.
42. M III 287.
43. M I 111.
44. Dh 373.
45. Dh 374.
46. S II 186.
47. A II 6, 36.
49. S IV 162.
50. Dh 4.
51. S I 162.
52. M I 129.
53. D I 251.
A II 160.


58. Ibid., p.59.

59. Ibid., p.57.


61. *Khiirodakiibhuute a-n nama-n na.m piyacakkhuuhi sampassante viharante* : M II 121.


63. Vin I 41.

64. VinA I 45.

65. Lakkha.na Sutta, D I 143.


68. S IV 217.
69. Sn 731, M I 301.
71. Ibid., p.262.
72. Ibid., p.264.
73. Ibid., p.265.
74. Grings and Dawson, p.16
75. The Nature of Human Consciousness, p.264.
76. Ibid., p.264.
77. Grings and Dawson, pp.156ff.
78. Ibid., p.19.
81.
82. S V 79-81; A V 108.
83. A II 72; Vin II 109.
84. MA I 78.
85. The Nature of Human Consciousness, p.266.
86. S III 147.
90. Ibid., pp.384, 385.
91. Ibid., pp.381, 380.
92. Ibid., p.300.
93. D I 70.
94. A I 216; M I 115.
95. See e.g. D I 191.
95. M I 487.
96. S IV 374.
97. S IV 380.
98. M I 140.
99. p.150
100. Dh 277-79; S III 133.
101. SA II 318.
102. Vsm 454. A note of caution has to be added to this interpretation, as DhA III 407 explains: tattha sabbe dhammaa ti pa~ncakkhandhaa va adhippetaa ti, "what is meant by all dhhammas is precisely the five aggregates."
103. The Dhammapada, a translation by Ven. Narada Thera, p.225, on v.279.
104. Appamattaa na miiyanti: Dh 21.
105. Sabbe bhaayanti maccuno : Dh 129; also Vsm I 239.
106. Ta.nhaapaccayaa upaadaana.m upaadaanapaccayaa bhavo bhavapaccayaa jaati .
107.
Na ki~nci loke upaadiyati, anupaadiya.m na paritassati, aparitassa.m paccatta.m yeva parinibbaayati: D II 68; anupaadaaya aparitassato aayati.m jaatijaraamara.nadukhhasamudayasambhavo na hoti : M III 223.

108. Upekhavaa anupaadaaya ca na paritassati: M III 228.

109. Catutthajjhaanaa vu.t.thahitvaa samanantaraa Bhagavaa parinibbaayi : D II 156.

110. Upekkhaasatipaarisuddhi : D I 75.

111. Sammohamara.na : Vsm 314.

112. Ud 80.


114. Ud 80.

115. AAkaase va sakuntaana.m gati tesa.m durannayaa: Dh 92

Reference