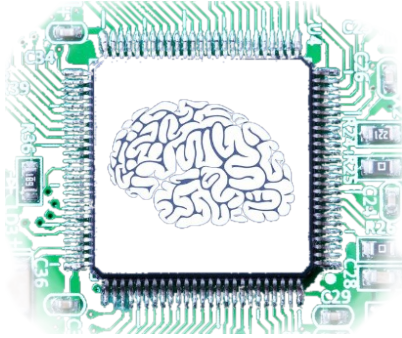


The brain is soft but the problem of consciousness is hard

A Buddhist approach to the scientific endeavour to quantify consciousness.

by Lama Tendar Olaf Hoeyer



Many modern people believe, that the mind is made by the brain, when it is active. This sort of belief is basically that the head is a piece of hardware and the mind a kind of software. Particularly for biologists, this belief is very practical. But hereby they fail to appreciate how fantastic the brain actually is. And they also seem to miss, that consciousness is not a thing, but an event in the mind. This is the place to remind you, that the so-called 'present knowledge' within science means the present ignorance. And there is a lot we know nothing about. So, let us start with what we know.

The work of the brain is sensation and 'translating' perception by the senses on a physical level to mental stuff, that the mind is capable of perceiving. So brain activity is not consciousness, Sanskrit: *vidjñana*, as such, but a sort of translation that may be perceived consciously. The work of the brain in this way precedes the manifestation of forms, Sanskrit: *rupas*, of the minds perceived sense objects, in the first skandha. Manifestation of experiences by the processes of the 5 skandhas do in this way not happen in the brain at all. (Read the paper: *The 5 skandhas*.)

The picture show a rather strange cauliflower head in the shape of a human brain; from the Coop Magazine Samvirke, February 2020.



The first Buddhist school to emphasize this relation was *Sautrantika*. The argument is simple. Mind is of an entirely different nature than physics, so the mind cannot perceive anything of a physical nature directly, but depend on physical things being able to produce a mental impression. Physical stuff must create such an image, that the mind is capable of perceiving. For instance, the flowers do not have colours, but reflect light in various ways showing colour. So the flower is not perceived as such – only the reflecting light is perceived by the eyes. Also, the eyes only react to certain wave lengths of light, the so-called visible light. And this is not, what the mind see. The mind perceives the following work in the brain, that is of such a character, that mind can perceive it.

The brain is in this way a very mysterious phenomenon. How may something physical be 'translated' to something mental? Is the 'translation' then in the very

cells of the brain or in its activity? The last appears to be the case. That makes the brain even more mysterious. How may biochemistry and electricity produce mental images? That something is mysterious does not necessarily mean, that it is difficult or complicated. Mysterious simply means **unknown**. But it appears obvious, that there is a connection between the brain and the mind. We just have to take care not to over-interpret what we experience. There are natural limits of cognition. The rest is as a matter of fact unknown, and that is not problematic as such. It will not hinder *liberation* and *enlightenment*. You do not need to know everything in order to reach *Nirvana*.

But the brain is not the 'seat' of the mind. The activity of the brain makes it possible for the mind to experience the world of sentient beings, Sanskrit: *samsara*, and incarnate in it. Most modern people will expect, that the brain comes first in a process of experience. But without the mind, nothing is experienced. In *Buddhadharma* we describe the relation in this way: everything and all experiences are *conditioned* by consciousness, Sanskrit: *vijñana*.



The picture shows 'Windows inside outside' - photo montage by Frank Kunert.

The ability of the mind to 'read' the activity of the brain as a 'translation' is no less mysterious than the brain as a sense organ. There is an interchange, that we as meditating yogis cannot cognize, nor as scientific observers, because the interface is in the signals and activity of the brain and the capacity of the mind to experience such mental impressions, that the brain produce. When you meditate, you only experience experiences and no brain activity. When you observe a living brain in activity, by means of various scientific

instruments, you do not experience any consciousness besides your own as an observer. So everything is a constant great mystery. Very unknown.

It is superstition to believe, that the brain creates the mind. You may of course think so and believe it, but there are no facts nor data to establish such causality. Instead, this superstition seems to contradict medieval Catholic ideas about soul, spirit and metaphysical realities like seven divine heavens in the sky and hell underground. These ideas that science in time distanced itself from, are naturally also misleading, because such ideas are not supported by facts nor data.

Any belief may have something to do with reality, but that is happening in the world of interpretation (the third skandha). And here we should note, that all interpretations ultimately are distorting. So even good interpretations are at best only a guideline. This means in practical terms, that even superstitious people within both religion and science may reach Nirvana in this life or may be reborn in a paradise, when they die, and they might also become capable of manifesting *Bodhicitta*. If they are curious enough. But if a superstitious person arrives at Nirvana, exactly at that occasion *insight* is also achieved, so any distortion falls away naturally and is transcended.

It is in a similar way apparent, that the mind has not created the brain. In primeval times a spontaneous exchange may have happened, whereby a mind incarnated in a body and started to experience sensations. Since then, it has become very popular to do so. The attractive thing seems to have been the feeling about incarnation, because it can be both enchanting and ecstatic. But unfortunately, also the four signs of samsara arrive (samsara is recognized by its properties. Samsara is: essence-less, compounded, perishable and suffering). So it is as a seduction, infatuation and with a lot of feeling that incarnation takes place. The mind catch the opportunity and it is a very old habit with countless death events and reincarnations behind it.

Translations of the brain and interaction with the mind

Such translations and interactions must influence and bring about change both in the brain and mind. Biologists speculate that development and use of language pushed the brain to grow larger. In the history of evolution, the ability of humans for abstraction in language and use of concepts is very extraordinary for sentient beings. Language does not only involve concepts, but also the use of the vocal chord, breath and so voice and sounds. We may therefore assume, that the brain not only make voice happen, but it also grow and connect cerebral fibres in an effort to combine sound and concepts. How exactly that may happen is in no way clear. It is on this background, that you might imagine the first skandha is something happening in the very sense organ on a physical level. But this is not very likely, because both sensation and language first must be translated into something of a mental nature, that the mind is capable of perceiving and process. Neither sensation nor language will become real for the mind, until it is being experienced – which of course is an activity of the mind, while the actual functioning of the brain must be presumed not to be experienced directly.

The ‘modern scientific’ understanding of the brain is in this way both somewhat primitive and quite insufficient. It has also entailed the catastrophic use of the ‘brain death criterion,’ that many states employ in order to harvest internal organs from these unfortunate people, for reuse in other individuals in need of such. Even when the brain show no sign of being alive, that persons death has in fact not yet begun. In Buddhist terms, the process of death has not even got started yet, when the brain shut down, because heart and breathing is still working. The

scientific excuse for employing this criterion is that the breath is only happening because of an artificial ventilator being employed. It is not known, how many horrors and terrific experiences this has brought about for the so-called brain dead people, when doctors has harvested their internal organs, while the patients were in fact still alive. (Read more about this subject in the paper: *Organ donor*. Unfortunately this paper has not been translated to English yet.)

It must be felt as a quite different state of mind, when the brain dies and the mind loose both 'translation' and interaction with the sense organs and the brain. When the body dies, the mind gets a bit more stupid, because we no longer can use the brain for our usual abstraction, language and conceptual perceptions. This lack of a brain will necessarily influence, how we experience the states between death and rebirth, Tibetan: *bardos*. We may still think about, what we experience, but we will also feel that something is missing. Our sense of locality and ability for abstraction will be felt to have diminished.

(Normally, the dead person will not become aware, that the event of death has taken place. A few days may pass, before the dead person realise this.)

It is therefore a good idea to learn the theories about these *bardos*, so some knowledge is in stock about, what typically happens in those states. You can also prepare yourself for all of this by taming the mind through meditation. If composure and calm have become a habit, while we are still alive, it will also help us in death and the intermediary states, where confusion and excitement easily may dominate experiences. I think it will appear very surprising to most people, in this way to suddenly loose the body. We have got so accustomed to it by many years.

So maybe the most important is not to dread the event beforehand. It ought to help to contemplate, just how it might feel – not death itself, but how it will be without the brain, that is without sense organs but with the active sense consciousnesses, Sanskrit: *vijñanas*. It may appear contradictory to be able to have sensations without the use of sense organs, but reality is a bit complicated on this point. We can do that, but in the intermediary states such sensation will often be intermingled with hallucinations. So, it becomes very difficult to distinguish between fantasy and actual sensation of real environments. It is also in this way, that we become a little stupid in the situation. It becomes difficult to understand what is real and where, you are. Of this reason, there is a feature of confusion in those states.

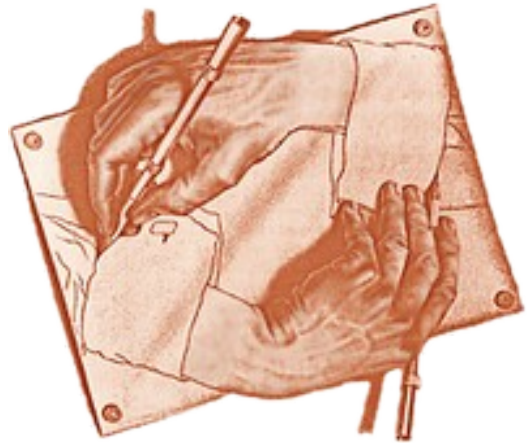
Also, death is frightening. So we need to relate to this fear of death, while we are still alive. It is an instinctive anxiety (a *klesha*, that is a *samskara*), so you cannot will it away (*cetana*). Fearlessness means to be able to endure the presence of fear and still be able to act decisively. To cope with fear is by itself a great art.

(Read the paper: *Angst for tomhed*. That means: Fear of Emptiness. Unfortunately the paper has not been translated to English yet.)

Anyway, it seems clear that the brain has all sort of things to do with language. Language is acquired. Language is both tangible symbols of sounds, which

means sensation, and the words contain intangible abstraction and conceptualisation, which of course is an activity of the mind.

It is therefore reasonable to assume that mind mould brain, as well as brain shaping mind. And this is of course not only the case in terms of language. So it is also with various crafts, farming, engineering, driving machines, combat, art and all sorts of rituals. Or maybe we should call it skills in handling the world. So also meditation is both a way to use the brain and a way to utilize the mind.



We still do not know, what the brain actually is or what it really is doing. Also, we do not know, what kind of dimension exactly the mind is.

It is of course tempting to designate the mind as something metaphysical, as they did in antiquity. Because metaphysical means something other than physical. But recalling scientific thinking and in respect of the Buddhist tradition, it is better to regard mind as a distinct dimension or collection of dimensions. Even these dimensions are not of a physical nature, they play part in all daily occupations and everyday experiences. It is Aristotle, that talked about metaphysics.

Buddha Sakyamuni talked about the mind as we all know it (or may come to know it). That is as our experiences, the 5 skandhas and the mind-space with its inherent clarity. Mind is not something beyond the world. The world **is** the mind. Because the world is an experience, an event of perception in the mind. Let us therefore talk about more dimensions to life than the usual length, width, height and time. Particularly the biological sciences really wish to understand the mind as a result of an activity in the brain. Of course, this is just a theory, but they hope in due time to prove that. First of all, this is due to scientific method that exactly exclude metaphysical entities, as Aristotle understood it, and limit itself to observe, what may be measured, weighed and repeated with the same measurements as result, every time someone weigh and measure the same things under the same circumstances. This is how so-called scientific method is done.

But part of scientific method is observation. For this an observer is needed. But what exactly is an observer? When we follow the usual Buddhist examination, we find at the end that a so-called objective observer is an experiencer of experiences. Now, even there can be no experience without a witness or an experiencer, it is impossible to locate the witness anywhere or even to formulate in a sensible way, what exactly a witness is, besides a sort of personal relation between experiencer and experience.

So the premise or prerequisite for scientific method as well as all sorts of weighing and measurements, is the consciousness of the witness. This is the

reason, that many scientists wish the mind to be physical in its basically nature, a product of brain activity. In the whole history of science, no one has ever proved that to be the case. Within science, it is called the ‘hard problem’ of consciousness. The problem though, is not consciousness at all – the problem is the scientific method, that exclude several dimensions from examination, including the crucial prerequisite for the method – that is consciousness, or more correctly the 8 kinds of consciousness.

(Read about these 8 in the paper: The 5 Skandhas).

In the *Buddhadharma* we say, that experiences are whatever they are, but consciousness is the *condition* for experience, and so also for observations, whether they are scientific or not. Within quantum-mechanics the scientists have come closer to an appreciation of consciousness’ role in the observations. But they of course do also not know how to describe consciousness exactly. Or how to quantify it.

Where Buddhism makes a difference, is by meditation. Meditation is a sort of experiment, where both body and mind are placed under strong limitations and



strict circumstances, in order to bring about a situation where the mind may be observed with steadily increasing clarity, as this art is gradually mastered. This is the reason that *Buddhadharma* delivers a very precise description of the mind, consciousness and the 5 skandhas, even Dharma is not a so-called ‘exact’ science. Concerning valid cognition, Sanskrit: *pramana*, there are certain distinct marks or signs, that makes it possible for the yogis to evaluate their progress and compare their experience with that of classical formulations from tradition. Contrarily, it is much more difficult to describe exactly, what is direct experience, Sanskrit: *pratyaksha*.

The picture shows Buddha Amitayus in meditative absorption or trance, Sanskrit: *samadhi*.

This is so, because the yogis must first accomplish mastery, Sanskrit: *dhyana*, in the art of meditative trance, Sanskrit: *samadhi*, in order to grasp, what direct experience is all about. For instance as opposed to distorted view. If you have no idea, that distortion is taking place naturally and spontaneously in your mind as a consequence of the workings of the 5 skandhas, you cannot apprehend *pratyaksha*. But luckily, *samadhi* has the effect that all your attachments and identifications cannot dominate your mind or consciousness. In this way you may discover the distortions.

The good news is of course, that everybody may accomplish mastery of *samadhi*. With such an experience, it is much more easy to appreciate the possibility of direct experience. Also we should note, that concerning Nirvana we

do not need to occupy ourselves with the limitations and methods of science, even they are very interesting. Whether there is a brain or not does not really matter either. It is the rest of your body, that is very important for mastery of meditation. You should actually sit with a much more straight back, than you usually do. And stay attentive to Vairocana's seven point posture. But the most important is of course the mind. And for the yogis it is not complicated at all to meditate on the mind and consciousness. Mind is not in the nose nor the eyes, but behind all sensations, thinking and feeling. And all sensations, thinking and feeling are besides quite simply processes in the mind. Such processes produce or bring about the experiences, that you perceive all the time. So the mind is very obvious.

The scientific method including its 'hard problem' with consciousness has been and is a blessing in many ways for human kind by improving health, machinery and much else. But the limited set of thinking about what may be cognized by scientific method, has caused a spiritual poverty in the so-called 'modern' people. When everything has to be so physical – even consciousness – then such 'modern' people develop a sort of nihilism, where life is just about getting the most out of this one and only chance, you get for a happy life. And when you die, you are dissolved into nothing and will no longer exist. And reincarnation will not happen, because it is believed to be impossible. That is, if the mind is some software in some hardware in your head. It is this effect on the spirit of our time that is superstition. It is superstition exactly, because this view ignores the 'hard problem' of consciousness, even science recognise the existence of this problem. This put such modern people in a position, where they are completely unprepared, when the sufferings and confusions continue into an unending future with many reincarnations.

It is difficult to understand how reincarnation may take place, without an understanding of the nature of the mind and how it works. It is also very difficult to appreciate for 'reformed' modern people, even they actually imagine or believe that they will eventually reincarnate. Because it is almost impossible to imagine a mind, without this mind being firmly anchored and attached to a body. This is the way, we are used to cognize mind and body. When various Buddhist masters explain the intermediate states, Tibetan: *bardos*, many ask themselves, if this is something they are supposed to believe in as Buddhists. But no, dear friends – this is not a subject of belief, Sanskrit: *sraddha*. It is and stays theoretical, because when you die and pass through these states, the feeling and experience will be so different from anything, you may hope to be able to imagine. Like a map of Copenhagen is very different from walking the streets in that city. Of course a map will help to find your way around, so learn the theory, but prepare for something completely unexpected.

Many dimensions

It ought to be obvious, that consciousness, mind and the actual experiences neither are cerebral cells nor chemical and electrical signals in nerve fibres. That

is not, what we experience, when we experience something. Instead we experience sensation, thoughts and feeling as well as fantasy and abstraction. At the same time, something is happening in the brain, but whatever that is, it is not likely that we may experience such events directly. The brain translate light, sound, taste, fragrance and so on to mental light, sound, taste, fragrance and so on, that the mind can perceive. And it is only this last work, we know consciously as sensation, thinking, feeling and so on. So obviously, mind and brain work together. That there is a coherence, a correlation, should be evident. But please note, that a correlation is not the same as causality. For instance may someone open an umbrella. Then it starts to rain. Now, it is not the umbrella being opened, that cause the rain to fall. Nor is it the rain, that cause the umbrella to open. There is a correlation, but no causality.

So, welcome to a new dimension in our understanding of the world and ourselves. Some philosophers has called this new dimension an ‘ocean of consciousness.’ Some of us call this the 5 skandhas. So maybe we should talk about 5 dimensions extra to the usual length, width, height and time. But on top of it, we must add the space of mind and its inherent clarity. When we say, that the clarity of mind is the 5 skandhas, we only need two extra dimensions. Mind-space and processes of perception and cognition. That is, extra dimensions in relation to classical European thinking about dimensionality.

In classical Dharma, dimensionality is described somewhat differently. Because the point of departure is not physics, but experience. So, what we investigate are the various parts of experience, Sanskrit: *dharmas*, and the areas of experiences, Sanskrit: *dhatas*. Investigating like this, we arrive at 18 dhatus or dimensions besides the usual four. Add to this the wholeness of experience, Sanskrit: *dharmadhatu*, that contain all dharmas and dhatus and consciousness. These many dimensions in classical Dharma do not designate any objective reality, but the dimensions of life which always is the subjective reality. Even in your own personal experience of everything and everybody and the whole world, no matter how subjective it might be, there are inescapable laws of nature. These are in so few words the 5 skandhas, that you cannot alter subjectively. They are, as they manifest, because otherwise you would not experience anything. So any subjective perception is limited and influenced by how the 5 skandhas operate or work. Also in your subjective world, you always have the choice between emotional clinging, Sanskrit: *kleshacitta*, and the open mind, unbiased heart and unprejudiced *Bodhicitta*, because they naturally are present as possible states of mind.

For an expanded view of the complexity of the subject matter, you may to your own benefit watch and hear the neuroscientist Donald Hoffman explain, how the brain ‘translates’ sense objects from something physical to something mental that consciousness can perceive, on this link: <https://aeon.co/videos/its-impossible-to-see-the-world-as-it-is-argues-a-cognitive-neuroscientist>. Donald Hoffman establish his premise in Darwin's theory of evolution but end with a description of emptiness, Sanskrit: *sunyata*.

Read also the paper: *The 5 skandhas*.