University of Ghent

2nd masters Comparative Cultural Sciences

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as 'Religion' or 'Science' ?

Hidden Presuppositions in Concepts

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for the Position of Buddhist Knowledge and Practices

in the Scientific Study of the Mind.

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Abstract

In this article we start off from the comparative religion studies and their search for concepts to include Buddhism in the study of religion. We analyze and criticize concepts of Otto, Zaehner, Smart and Wiebe and show how they give a biased view of Buddhism and are not able to include all aspects of the Buddhist tradition in their study, thereby reducing Buddhism to the categories influenced by Western cultural *a priori*'s. With Orye we uncover the cultural preconceptions and the underlying problematic cognitive paradigm in their interpretations of Smith's concepts. We discuss the qualities and weak points of cognitive and Gibsonian ecological psychology and place them next to the Buddhist theory on mediated and direct perception. We use ecological psychology and Ingold's application of ecological concepts and theory in a new conceptual framework. This conceptual framework is able to include the non-conceptual learning processes and the fine-tuning of the mental perceptual system in Buddhist *shamatha* meditation. This results in a new learning environment in the mind and in an instrument for the acquisition of a non-symbolical, non-conceptual, conscious, perceptual kind knowledge about the mind in *vipassana* meditation. A characterizing aspect of this kind of knowledge is that it has a transformative effect on the 'knower' as a whole, including his body, mind, heart and perceptual systems. We explain the different aspects of mindfulness and awareness in fine-tuning and training mental perception and the Buddhist learning environment in this process of 'guided rediscovery'. We show how Buddhist knowledge and Buddhist practices have inspired mainstream psychology and neuropsychology. The introduction of Buddhist knowledge and methodologies in science has raised controversies and meta-philosophical discussions about whether Buddhism, often still perceived of as a 'religion', can have a legitimate voice in the scientific investigation of the mind. With Latour we will show how Buddhism and science are fundamentally different and unique, but both valuable systems for the investigation of reality. In Latour's radical symmetrical approach however, not a single statement or hypothesis can be excluded from the scientific debate for the sole reason of being derived from Buddhism, or not being compatible with the cognitive paradigm of Western knowledge. With Latour we plea for a dialogue, more research, multiple methodologies, debates and controversies, in which *a posteriori* any statement can be collectively refuted as 'artifact' or accepted as 'fact' on the basis of rigorous scientific research. In this way Buddhist knowledge and practices can have a place in the scientific investigation of the mind, rather than merely being reduced to the object of science, be it the comparative religion studies, psychology or neuroscience. There are many testable hypotheses in Buddhist psychology which could give new inspiration to the scientific debate. Buddhist psychology as a partner to Western psychology could throw new light on the explanations for the positive effects found in outcome studies on mindfulness-based approaches and could help in our scientific understanding of the working-mechanisms of the mind.

Foreword

I would like to express my gratitude to my parents, who have given me these great opportunities to study and supported me materially during the writing process of my thesis. Without them, this project wouldn't have been possible. I especially want to thank Lama Karta who expressed his belief in the importance of my work, which constantly motivated me during the writing process. I also want to thank him for his wise personal advice which guided me through the difficult moments I had to overcome during the period of writing this thesis and which enabled me to learn a lot on another level. His words, his warmth and his presence were a welcome support for me. This is an occasion by which I cannot omit to express my thanks to Lama Karta, Lama Zeupa and Traleg Rinpoche for the very interesting and inspiring teachings they gave me over the years. It is during these teachings that the ideas for this thesis started to unfold. Next to that, I owe a lot to Marie-Claude, Régis, Quentin and Claudine, who supported me by their ever gentleness, humor, chatters, self-made cakes, teas, smiles and enthusiastic motivation during the three months I spent in their house to write. Their company, the culture of the Gaume, the unfolding of nature during spring, the wonder of all the animals, the playful cat, the loyal horse and the magic silence with the sounds of the meandering river in the background, made the times of writing this thesis into a wonderful experience. But most of all I have to thank my promoter Lieve Orye, in the first place for having inspired me to write this thesis by her teachings, for all the hours of work she spent reading my texts, for all the interesting discussions we had on the subject, for her many criticisms and especially for believing in me. I also would like to thank Rik Pinxten for his openness of mind and willingness to listen for the first time to the unfolding of this idea to write about Buddhism and science. Studying comparative cultural sciences was like intellectually coming home, a truly wonderful experience to me. Special thanks goes to Philip for the discussions we had on this topic and his critical suggestions for improving my text. A special thanks to Siegfried for the inspiring discussions on the topic. I would also like to thank Lut, Tom, Lea, Christelle and Yves for the huge job they did in reading all the pages and the corrections they suggested. Thanks to Peter-Jan who helped me out big time with the lay-out. I also want to thank all my colleagues at work for their patience and understanding, since I had to divide my time and attention between my job and my studies.

I am verry happy (thanks to all of these people) to have been enabled to write down all the ideas in my head. Unfortunately because of this, the thesis ended up being a little longer than expected. This article consists of V parts which are shortly summarized in the beginning of each part. Each part mostly consists of 3 chapters. I have summarized each chapter in the beginning of the chapter. For those who are more interested in one or the other chapter, those readers can also follow the whole line of reasoning in the thesis by reading the summaries, but are in this way enabled to skip those chapters which are less interesting to them.

I asked permission to write the article in English, because it is my intention to later take up the dialogue internationally, with scientists working on the topics concerned in this article. In Belgium there is a boom in secularized meditation forms in mainstream psychotherapy and psychology, whereas internationally bigger steps in the dialogue between Buddhism and science have been made. I also hope to be able to present my work to Buddhists interested in the encounter of Western sciences and Buddhism. My work could be a way for the latter to come to an understanding of

Western culture, the Western interpretation of Buddhist theories and the role of Western psychology in this intercultural encounter. Another reason why I wrote in English, is because I was asked to publish my work on the internet in an international peer-review journal for students.

Annelies De Zaeytijd

Entrance

It was not my wish to speak of Buddhism from the position of the comparative science of religion. I am especially interested in the area of psychology and not 'religion'. However in our society, to say something legitimate about Buddhism, we should still start from the 'right' category in order to be heard. But at the same time, talking from the position of religion studies will wake the interest of some people who are interested in religion, while I would have preferred to address an audience with the same interest as me in the human mind. It will also leave Buddhism safely aside, so it doesn't have a voice in society. Since categorized as a religion, your voice is only legitimate in some well-limited areas. You can talk about morals, ethics, interesting (read: weirdo) worldviews, some aspects of life and even death. But for the rest you wont be taken serious to talk about other areas of life, like psychology. That is the reason why I want to write this article. So I will start to speak from the position of religion studies, in order to brake out of this and later discuss why Buddhism should also have a voice in the sciences about the mind (psychology and neuroscience).

As an adolescent I got acquainted with Buddhism, while living a year in Thailand. There I received some teachings and read some books about Buddhism. Later while studying psychology I recognised a lot of the Buddhist concepts in certain psychological theories. Actually my interest in the courses was somehow guided in the back of my head with what I knew about Buddhism, since the Buddhist teachings were my first teachings about the human mind, suffering and happiness. During my study of psychology I directed my attention back to some Buddhist teachings. With a lot of suspicion I headed towards a Tibetan Temple. With a lot of suspicion, because in Thailand I had received teachings in a temple, which emphasised not to pay attention to external things like the beauty of the temple, rituals, etc. but to pay attention to internal things and especially practice meditation and study the teachings. The Tibetan temple was overwhelming in all its colours: beautiful Buddha-images on the walls, statues, ... The teachings were guided by a kind of Tibetan singing, which everyone seemed to be singing and I wondered whether they knew what they were singing. So I thought by myself that if this would seem to be like a sect, I would leave. I had arrived in that place I didn't know at all, all by myself, with the taxi not knowing what to expect. Hanging around on the main plaza one of the lamas passed by. He hit me on the head with his prayer book and asked me how I was doing. I told him that the prayers in Tibetan were pretty difficult. He simply said it was not and I should try my best. A really weirdo thing to say, off course those prayers were difficult. But his sympathy was so disarming and friendly, so simple, so normal, nothing esoteric or sectarian about it. I dropped my suspicion and went along to the classes. The teachings interested me a lot and I decided to keep on following the classes there. My second acquaintance with Buddhism was this time guided with what I had learned at university about psychology and especially psychoanalysis. In a lot of the things taught in the Buddhist classes, I could recognise different aspects from psychoanalytic theory.

My interest in Buddhism came especially from my interest in the workings of the mind of the human being. And next to my psychology education at university I educated myself by reading about Buddhist psychology, which was a nice complementary. So now you understand that when I want to write something about Buddhism, mostly I write from this interest in the workings of the human mind. And I

want to write for people who have that same interest, in order to share what I have learned. But to write something about Buddhism in mainstream academic psychology is something rarely done. I did do it during my postgraduate education of psychoanalysis and it was accepted. But if you check the scientific publications in psychology, you have to have gained a good reputation as a *real* scientist, before you can afford to write something about Buddhism. Even if in mainstream academic psychology there is at the moment great interest by many authors and therapists into the technique of Mindfullness Based Cognitive therapy (MBCT) or Mindfullness Based Stress Reduction (MBSR), both techniques based on Buddhist meditative techniques. Also other psychotherapies which are widely used in the field of clinical practice are based on Buddhist principles. I know from my own interest that Buddhism has some interesting things to say about the mind, but I found out that the presence of Buddhism in the scientific academic literature is limited to mentioning here and there where the techniques were derived from, but you can hardly find something about Buddhist psychology itself.

Where we do find a lot about Buddhism is in the comparative religion studies. Buddhism there, is studied as an *object* of research. I see a lot of discussions about the ancient texts, and about 'the doctrines' in Buddhism. But that information doesn't satisfy me neither, since my interest in Buddhism comes from an interest in Buddhist psychology. I noticed another trend within the neurosciences, where Buddhist psychology is being used not only as a source of inspiration for scientific research, but where Buddhists are being *partners* in the scientific research, having a legitimate voice and are giving advice about what to study and how to set up the research. As a psychologist having this appreciation for Buddhist psychology I thought this could be a positive step in the direction of the knowledge Buddhism could share with us. My problem was that I could discuss all I wanted about the mind and psychology, but I felt some hesitation to bring in Buddhist aspects in discussions with colleagues. Since Buddhism is a 'religion' and if you are religious, you are classified under the category of the irrational people, who still believe in things which are not true, like for example reincarnation. And being Buddhist, you are not only irrational like religious people, on top of that you are also weirdo. So in order to be taken serious in a discussion that is not such a good move. That is why I decided to study comparative cultural sciences, in order to be able to talk about Buddhism from a more legitimate category.

That is why I will have to start our journey in the comparative study of religion (part I). We will take a look at Buddhism from this category and point out some problems in the concepts we use to study 'religion'. The coming of Buddhism to the West has introduced a lot of problems in the religion studies. Buddhism seemed not to be so easily put into the category of religion. Some of the authors at the dawn of comparative religion studies tried to put Buddhism within a Christian frame, others took the solution in reformulating the definition of religion in order to be able to include Buddhism in the religion studies. In order to make an analysis of the problems we will be guided by some of the main authors within this field of study, namely Ninian Smart, Wilfred Cantwell Smith and Donald Wiebe. With Orye we filter out an underlying paradigm in religion studies with a bunch of hidden hypotheses about human beings, learning processes and knowledge in their theories and the controversies this brings along. Following that, we will take a look at our own Western culture, where the comparative religion studies originated (part II). We will look *under* the concepts of religion studies, what beliefs, ideas, theories are

influencing this research through these concepts, which are actually saying more about our own culture and which are, as such, limiting as concepts for the study of another culture. We will be guided in this by Ingold, an anthropologist who points out some of the typical Western cultural aspects, which we take for granted, in the theories of the social sciences. These theories are often implicitly present in concepts in other fields, like the religion studies. We will use this information to reformulate some of the concepts of religion studies in order to use these to take a second look at Buddhism (part III). This will show us a totally different picture of Buddhism. Buddhism here appears as a study of the mind.

Now it is legitimate to ask the following question: "Could Buddhist knowledge and practices be of any interest in the academic study of the mind?". The question in part V of this article takes us into another area. Our question is about whether Buddhism could have a legitimate voice as a *partner* (not just as an *object* of study) to be taken *au sérieux* in the scientific study of the psyché and the mind. There seems to be a very firm answer from some of the scientists: "No! Buddhism is a religion and we have to respect the barriers between religion and science, it has taken our ancestors so much effort to put a separation between these two and we want to keep it, we don't want to mix science with religion.". One example of how delicate this subject is, was the yearly congress of neuroscience where the Dalai Lama was invited to give a talk about meditation and the influences this has on the mind. The organisers of the congress had foreseen some problems and played it safe. They introduced a new category into the yearly conferences: namely 'society and neurosciences' in order to be able to fit the Dalai Lama into it. In this category it could later also be possible to talk about for example 'architecture and neuroscience', ... So the category allowed non-scientific subjects into the conference. This precaution however could not avoid a huge controversy in which scientists finally decided to start a petition against the lecture of the Dalai Lama in the conference. Another trend within the sciences tries to solve this problem by claiming that Buddhism *is* science, since it is an empirical, experiential study of the mind, using rigorous, scientific methods. We cannot agree with none of these extremes. We will check some of the hidden presuppositions about these kinds of statements and where we can place them. Therefore we need the ethnographic study of science. We will let ourselves be guided in this by Bruno Latour. He is a rather controversial figure, since he was the first who didn't use science as a partner in a discussion about what science should be. Instead he took science as the object of his ethnographic study. He went to follow scientists in the fields and studied their discussions and controversies in scientific magazines, in order to find out what science really is, how scientists behave like, what arguments are used and how facts are produced/discovered. Instead of listening to what scientists say in the philosophical science studies, he started an empirical study of science. This will bring a lot of clarity in the discussion whether Buddhism could have a legitimate voice within the sciences or not. We will first draw out the way Buddhism has already influenced psychology and the neurosciences (part IV), in order to later throw some light on the accompanying discussions whether this evolution is legitimate or not (part V). We hope to offer a frame in which we can understand the impact Buddhism already had on academic mainstream science. We also hope to open the way for a Buddhist voice within science, which can say something without raising suspicion *a priori*. We also hope to open a way for speaking from the Buddhist point of view or Buddhist psychology within the social sciences, especially psychology. So the next

time I write something about Buddhism I wouldn’t have to speak from the category of comparative cultural sciences or the religion studies.

INTRODUCTION: THE DISCOVERY/CONSTRUCTION OF 'BUDDHISM' BY THE WEST.

In this introductory chapter we will take a glimpse at the discovery of Buddhism by the West. In this chapter we will argue, that in the same movement of discovering Buddhism, the Western mind also created Buddhism. The term Buddhism, as well as its categorization as a religion is a primarily Western invention. Eastern translators for example were perplexed when first encountered with the word 'religion', finding no way to translate it. Neither did there exist a word for 'Buddhism' in eastern languages. This means that their self-image was highly distinct from the image Western people had about these people and their practices. The phenomena Western man observed in these other countries, however became classified, ordered and received meaning through this categorization as 'religion'. This was only a confirmation of a Western category which was already *a priori* in their heads, even before they had set foot in those 'Buddhist' countries.

The problem with this is that today, we still have difficulties in seeing Buddhism as something else than 'religion'. In this work, we want to question what aspects and processes have become invisible to us, because of this classification. In this introductory chapter we especially outline the Victorian, Christian and modern aspects in the Victorian discourse about Buddhism. We will show how this discourse tells us more about the Western mind, rather than that it would tell us anything about a phenomenon generally referred to as 'Buddhism'. We will also show how certain aspects, which couldn't find any Western counterparts in the conceptual frameworks of the Western mind, such as meditation and Nirvana got misinterpreted.

Finally the confrontation with Buddhism and its refusal to believe in gods, shocked the Western mind in a long-existing truth (since the 16th century) about the innate religiousness of mankind. From that moment a lot of debate went to whether Buddhism was a religion or a philosophy. For 20 years, Buddhism was no longer classified as a religion, until the definition of religion was adapted and Buddhism could be termed a religion again. In part I we will discuss the problems and strategies involved in this redefinition of religion.

Another movement radically classified Buddhism as a science. We will show how the discourse of scientific Buddhism says no more about Buddhism than the Victorian protestant Buddhism. The modern themes we found there, such as the self-discovery of truth, the importance of empirical evidence and rational reasoning, again, tell us more about the Western mind than about Buddhism.

We showed how the Victorian interpretation of Buddhism was highly biased and influenced by the socio-cultural movement in the Victorian society. However these ideas, in a secular guise, still play an important role in the perception of Buddhism nowadays, in our culture, as well as in current scientific research. For example, the fact that Buddhism, is still classified as a religion only, has for a consequence, that Buddhist knowledge is being excluded from the scientific debate for the sole fact, that it is a religion. The fact that Buddhism would be a religion or not, or more than a religion alone, is no longer questioned. However the category of science does no more justice to Buddhism or does not reveal more about Buddhism, but rather shows us something about the Western mind.

We will highlight the problematic use of categories such as ‘religion’ and ‘science’ and the implications those concepts and their hidden accompanying meanings have on presenting a deformed view on Buddhism. Both categories, ‘religion’ and ‘science’ highlight certain aspects of Buddhism and hide other important aspects of Buddhism. This makes us turn our attention to the categories we use, their underlying hypotheses and the problems this brings us in the study of Buddhism in the comparative studies of religion (part I). We will do the same for the category of ‘science’ in part V. Filtering out the underlying hypotheses enables us to make visible some important aspects within Buddhism which, until then, had been covered up the those categories. This is an important aim of this article: to be able to take a second look at Buddhism, in all its aspects, and not only through what the filters of our categories (‘religion’ and ‘science’) allow us to see.

While in the Victorian period the West was informed about Buddhism through the highly biased outlook of some Western people, currently a lot of Buddhists have migrated to the West and like this have initiated a new process, in which Western people could meet with living Buddhism. This has resulted in a new meeting between Buddhism and science (which we will outline in more detail in part IV). However the old categories of ‘religion’ and ‘science’ along with their hidden meanings and underlying hypotheses still affect the debates accompanying these new approaches in science (part V).

1 Buddhism doesn’t exist

Is ‘Buddhism’ something which existed since 2500 years? Naturally we would say yes. But in the literature we found extensive evidence which nuances this enormously. Yes something like Buddhism must have existed since then. But why is there no word for Buddhism for example in the Tibetan language (Kvaerne, 1972)? When Japanese translators first encountered the English word ‘religion’ in the international trade treatises of the late 1850s, they were perplexed and had difficulty finding the proper corresponding term in Japanese. There was no indigenous word that referred to something as broad as ‘religion’ (Josephson, 2006). According to many authors, the term ‘Buddhism’ is a Western invention that belies a tremendous diversity of thought and practices (Jackson, 1996). There is a creative power in words and in theorizing we bring worlds into existence (Herbrechtsmeier, 1993). Did we perhaps do that with ‘Buddhism’? de Wit (2005) has claimed for example that something like ‘Buddhism’ doesn’t exist. Why are we then, in our times so very much acquainted with this term ‘Buddhism’? If we go to Asia, and see a ‘Wat’ (Thailand) or a ‘Gompa’ (Tibet), we enter in something which looks like a monastery, a temple, a church or a cathedral. There are people working in there, wearing robes, which makes us think of monks and priests, we see certain objects which look like icons and which seem to be worshiped by people who look like ‘believers’ (Batchelor, 1997). Isn’t this the proof that Buddhism exists and is a religion? Or might it just be an unquestioned confirmation of one of our own Western cultural categories which was already in our head *a priori?*

Our first impression makes our own Western biases and presuppositions most visible. They include the present and the older presuppositions in our culture about the other culture (de Wit, 1998). So let's take a look at the period in which our culture first got confronted with this phenomenon that has later received the term 'Buddhism' as a name. When Christian missionaries headed for Asia, they were *expecting* to find religions there. Balagangadhara(1994) argues how it happened that religious people in those days found other religions during their missionary work. They *saw* it because they *expected* it to be there, since: "Where there is a God, there must exist a religion too.". It was in this way that they were approaching their investigation from a prejudiced and biased position. What they *saw* got immediately assimilated to their conceptual (and religious) framework, without questioning it. It only reaffirmed their expectations: "See there is a religion, of course, because there is a God.". Around 1820 a collection of 'religious phenomena' was classified as the 'religion of Buddha' or 'Buddhism' (Almond, 1988). As soon as we have a name for something, we can also start to talk about it. By the beginning of the 1850s a discourse about Buddhism had developed in the Victorian society (Almond, 1988). The attention of English-speaking people was drawn to Buddhism through 'The light of Asia', a book from an Anglican clergyman, who compared the Buddha with Jesus (Almond, 1988). In those days Buddha was perceived of as a God by the western mind (Almond, 1988). It indicated vividly those heroic qualities of the Buddha and the romantic ambience of Buddhism that attracted so many Victorians. The most important works on Buddhism in those days were written for an educated, but non-specialist wide-reading public. It was one of the numerous '–isms' in Victorian society upon which one needed to have an opinion (Almond, 1988).

2 Does the Victorian discourse tell us something about 'Buddhism' or about the Western mind?

In his article 'The British discovery of Buddhism' Philip Almond (1988) argues that an imaginative Buddhism was created in the first half of the nineteenth century. According to him the discourse about Buddhism was created and sustained by the reification of the term Buddh*ism*. In his article he shows in a very detailed way how the creation of Buddhism was strongly determined by the Victorian culture in which it emerged as an object of discourse. Almond (1988) shows how the interpretation of Buddhism was strongly influenced by the concerns of the Victorian age. Their fundamental mode of organizing the East provided a conceptual filter through which acceptable aspects of Buddhism could be endorsed and unacceptable ones rejected. Assimilating Buddhism in so far as it correlated with normative Victorian ideas and values and rejecting Buddhism in so far as it was incommensurable with these (Almond, 1988).

The construction and interpretation of Buddhism reveals much about nine-teenth-century concerns and crucial socio-cultural aspects of the Victorian period. In this sense we could say that this 'Victorian Buddhism' is not giving us a clear image about Buddhism itself, but about Buddhism seen through the eyes of the Victorians and as such 'Victorian Buddhism' is rather giving us an image of the people of that age. Almond's (1988) concern therefore is not about Buddhism itself, but about the views about Buddhism: a small nuance, but a huge difference. This discourse reflected the hot topics during that age, like discussions about the creation and the cosmology of the Bible, biology, theism and atheism, annihilation and immortality and the essence

of human nature. Almond (1988) gives us an interesting lesson in history because by discussing this discourse, he reveals the world in which the construction of Buddhism took place. The discourse about Buddhism provides a mirror in which was reflected an image not only of the Orient, but of the Victorian world.

Almond was inspired by Edward Said who brought a more broader discourse about the Orient to light, of which 'Victorian Buddhism' is a part. Said also claims that Orientalism doesn't teach us a lot about the Orient, but about the Orient seen through the eyes of the Westerner. As such Orientalism is an interesting discourse about how western people interpreted another culture through their own cultural concepts. So whether the 'Orient' makes sense, depends more on the West than on the Orient. In this way also the Victorians developed a discourse within which Buddhism was circumscribed. Scholars are now increasingly interested in the mechanisms that created such transhistorical essences as 'religion', 'the East', 'the Orient' and 'Buddhism'. Donald Lopez (1995) for example examined in his 'Curators of the Buddha: The Study of Buddhism under Colonialism" the social, political and economic conditions that made the very notion of 'Buddhism' and 'Buddhist' studies possible and desirable at a specific moment in European colonial history.

2.1 How Buddhism was reified as a 'religion'

While discovering Buddhism, Buddhism did provide the answers, but the questioned asked were pointedly Victorian ones (Almond, 1988). The Europeans would approach the question of understanding the traditions in India through their own frameworks and questions (Balagangadhara, 1994).

To the Christians the source of such 'beliefs' could only be found in holy texts (Balagangadhara, 1994). Convinced as they were that these beliefs were all scripturally sanctioned, the hunt was on to locate the Holy Book (Balagangadhara, 1994). The very identity of Buddhism was captured and delineated by the translations of these texts: the doctrinal core, the history, and the transformation of the religion were decided by means of deciphering the texts (Balagangadhara, 1994). However, translating a text also implies that one should understand the text (de Wit, 1998). It was unavoidable that the translations from the 19th century were highly influenced by the spirit of those days, when Buddhism was mostly seen as a religion (de Wit, 1998). It didn't occur to these missionaries or to the readers of their exploits that they could be creating 'religions' to be subsequently called 'Buddhism', 'Hinduism' etc. around the texts that they so feverishly began to search, translate and study.

During the first twenty-five years of the Victorian period, Buddhism came to be determined as an object of which the primary location was the West, at the oriental libraries and institutes of the West, at the desks of the western savants who interpreted it (Almond, 1988). It was through the collection and translation of manuscripts that Buddhism became a purely textual and philosophical construct accessible to readers in Paris and London (Lopez, 1995). The *assumption* that the original was the essential, justified the fact that the Pali Buddhism came to be seen as containing the *essence* of Buddhism (Almond, 1988). Like this they tried to identify the 'pure' Buddhism which wasn't yet altered and corrupted by the inventions of *worldly* men (Almond, 1988).

To the Westminster review of 1878 the Buddha, like many other virtuous pagans, was to be considered an anonymous Chrisitian (Almond, 1988). It was but a short step from conceiving of Buddhism as revelatory to conceiving of it as part of God's plan of salvation. Samuel Beal saw both Buddhism and Confucianism as preparing the people of India and China for the reception of a higher truth (the Christian one) (Almond, 1988). In other interpretations the Buddha became the Martin Luther of India rebelling against the 'roman catholic' Brahmanic priestly caste (Balagangadhara, 1994). The Lamaism of Tibet, on the other hand was frequently compared by English writers to roman Catholicism and regarded as a priestly ritualistic corruption of original Buddhism (Balagangadhara, 1994). For example John Stewart in a letter to sir John Pringle described Tibetan religion as a corrupted version of enlightenment deism (Almond, 1988).

The Victorians found many Buddhist 'doctrines', but they couldn't find analogies within their own worldview about the Buddhist practice of contemplation (Almond, 1988). According to the Victorians, it was the intellectual inferiority of the Oriental mind which was the cause of the Buddhist 'doctrine' of nirvana, conceived of as a passionless, emotionless rest where the tired soul dreamlessly slumbers (Almond, 1988). In the *encyclopedia Brittannica* in 1810 Nirvana got defined as: "we must accustom ourselves to do nothing, will nothing, feel nothing, desire nothing." (Almond, 1988). Words like 'indolence' and 'idiocy' signal the failure of the Victorian writer to come to terms with a passive element in religion that contrasted so much with their Victorian Gospel of work. We will come back to how these experiential aspects of Buddhism were interpreted in the early comparative religious studies (part I) and the mistakes which were made in this. Later we will show how else we could understand those experiential aspects, while filtering out certain Western hypotheses hidden in the concepts and categories within the comparative religion studies (part II). This will make certain aspects and processes inherent to Buddhism visible, which were until then invisible because of its classification as a 'religion'. While taking this second look at Buddhism, a wholly different image emerges in front of us (part III). This will lead us away from the notion of 'religion', and will bring us into other areas of research (part IV and V).

The notion of the innate religiousness of mankind, an important European notion since the middle of the sixteenth century, was being shocked when it began to dawn to Victorians that Buddhists didn't worship a God or gods at all (Almond, 1988). This non-theism of Buddhism was at first very confusing if not offensive to Westerners, when they first encountered Buddhists. The first reaction was to deny that the Buddhist movement was a 'religious' one (Florida, 1990). The question whether Buddhism was a 'religion' or a 'philosophy' was much debated on towards the end of the century. By definition, no system, which professed atheism could qualify as a religion (Almond, 1988). For the last thirty-five years of the nineteenth century, the image of a godless Buddhism predominated, in spite of the recognition of a theistic Mahayana Buddhism. Buddhism would have to wait some twenty more years before Natham Söderblom and Rudolf Otto would design a definition in terms of holiness and the Holy, which would be able to include Buddhism into it (Almond, 1988). We will come back to the problems implied in this new definition in part I.

2.2 Buddhism as a 'religion of science'

On the one hand Buddhism got reinterpreted as a 'religion', an important category used in that period, strongly influenced by the Liberal Protestant movement. Next to Protestant themes also modern themes got mixed into different English forms of Buddhism. By some authors in the Victorian period, Buddhism got radically reinterpreted as a 'science'. This discourse of scientific Buddhism was developed by both Westerners and Asians in response to different but interrelated crises in their various cultural contexts in the late nineteenth and early twentieth centuries (McMahan, 2004). Where the Victorian crisis of faith questioned traditional forms of Christianity and used Buddhism in this discourse, for the Asians, it was the crisis of colonialism, Western hegemony and demoralization over Buddhism's loss of prestige in the wake of Christianity that allowed some modernist themes to be incorporated into Buddhism in the East.

Paul Carus and Henry Steel Olcott were highly influential in attempting to establish the scientificity of Buddhism in response to the Victorian crisis of faith. This discourse represented Buddhism as an inverse reflection of what sceptics and liberal Christians believed to be problematic about orthodox interpretations of Christianity in the light of scientific developments (McMahan, 2004). Those authors stressed that Buddhism was not about faith but about finding out and knowing directly by oneself. We can recognize an important modern theme in this. They stressed the self-discovery of truth which was in accord with Buddhism. They stressed immediate experience rather than objective belief-systems or knowledge in contrast with Christianity (Mellor, 1991). An article in the Encyclopaedia of Buddhism contrasts Buddhism to unscientific or speculative religions, because it is non-speculative and scientific. In their view, Gotama did not formulate a system, he discovered a law, which may be compared to Copernicus or Galileo in the physical science. Buddhism extends the natural laws, the laws of causality to the mental or psychic domain (Singh, 1996).

This exemplifies one of the most important ways in which Buddhism gained cultural currency in the West, when it was introduced in the nineteenth century, namely as a religion uniquely comparable with modern science. In this way Buddhism was incorporated into a pre-existing network of concerns, assumptions, ideas, agendas and practices that characterized certain features of late nineteenth century life (McMahan, 2004). The questions these authors asked of Buddhism were framed in terms of Christianity in a period of Modernization and next to that adopted the protestant emphasis on text, personal experience and social activism (McMahan, 2004). In this way also the Western narrative of modernity got reconfigured and incorporated into the Buddhist narratives (McMahan, 2004).

In the "World's Parliament of Religions" in Chicago (1893) some of the themes connecting Buddhism to modern science were proffered, interweaving Buddhist concepts with Western scientific ones (McMahan, 2004). Early authors were trying to blend Buddhism with science. They were allying key concepts in scientific discourse with those found in Buddhism. These authors located true Buddhism in the texts of the ancient past and delimited it to carefully selected teachings, excluding any consideration of living Buddhists. Olcott for example promoted *his* vision of the dharma to the West and to the Sinhalese and other Buddhists worldwide. His Buddhist Catechism (1881) was a compilation of 'fundamental' Buddhist beliefs. It attempted to extract what he considered the most important doctrines from the

Buddhist tradition, the true teachings, according to him, could by definition be interpreted as consonant with the modern scientific worldview. Those teachings which were not consistent with modern science were rejected or de-emphasised. The 'Catechism's' chapter on Buddhism and science was the earliest attempt to work out a definite correlation between Buddhism and science (McMahan, 2004). According to Olcott Buddhism was based on empirical evidence and autonomous reason, an implicit but obvious contrast with traditional Christianity, for which he often showed contempt. His book became extremely popular. The insistence on verification through personal experience and distrust of faith in the Christian sense would become perhaps the most central theme of modernist Buddhism (McMahan, 2004).

Another influential work was Paul Carus' "Gospel of Buddhism", which got translated into many languages and was even used to introduce Asian Buddhists themselves to Buddhism (McMahan, 2004). He presented a rationalist scientific Buddhism that reflected the broad themes of liberal Protestantism and enlightenment philosophy. He made little attempt to conceal that he was highlighting certain aspects of Buddhism, whatever could be interpreted as in accord with the current scientific worldview and suppressing others. Carus, in his work, also refers to the spiritual crisis of the educated and no doubt his own spiritual crisis (McMahan, 2004).

Also Sharf (1995) pointed out the influence of Western modern and Asian reform movements in the interpretation of Buddhism during those days. Suzuki, who studied in his youth with Paul Carus, highly influenced popular conceptions of Zen both in Japan and in the West, which put a great emphasis on meditative experience and 'satori'. In this way Sharf (1995) pointed out a 'Protestant Zen' which rationalized Zen practice through minimizing the importance of the pietistic, ritualistic and sacramental dimensions of practice in favour of an instrumental or goal-directed approach.

According to Sharf (1995) the Occident also played an important role in Buddhist reform movements of Southeast Asia within Theravada Vipassana revivals in Burma and Sri Lanka. These reform movements emphasized the values of individualism, a rational and instrumental approach to Buddhist teachings, repudiating the supernatural aspects, the rejection of 'empty' ritual, a rejection of the authority of the clergy, an emphasis on meditation and a renewed interest in Pali scriptural materials. Every Buddhist should seek his own salvation in this life, which in turn means that he should practice meditation. In this movement we can also find an increasing emphasis on the worldly benefits of meditation: vipassana was said to increase physical and psychological health, to alleviate stress and to help one deal more effectively with family and business relationships (Sharf, 1995).

2.3 Conclusion

In this way new Buddhist discourses were created. Buddhism in England is therefore a deeply problematic category, because it is the focus of a number of different, sometimes competing religious and cultural forces during the Victorian period. These intertwining modernizing processes over the last 150 years have been creating unprecedented forms of Buddhism that are hybrids of Buddhism and modern, western thought and practice (McMahan, 2004). The process of formulating new forms of Buddhism however is not unique for Buddhism coming to the West. Buddhism typically got mixed with the cultures it found on its way, in this sense a

Thai, Tibetan, Japanese, Chinese, ... form of Buddhism came into existence. After the mixing it is difficult to find out which aspects were 'purely' Buddhist and which of them were cultural influences. It is not because Buddhism has adapted itself to a certain culture that it would have become an impure form, and thus a corrupted form of Buddhism. However interpreting some forms as pure and some forms as corrupted, while reducing true Buddhism to its old texts, and thereby creating an abstract form of Buddhism is a typically Western phenomenon. Such reductions created an abstract Buddhism already constituted by modernist presuppositions. Buddhism is too complex and diverse to be reduced to such generalities.

Mellor (1991) has pointed out the problems this brings for theoretical and methodological questions concerning the approach to Buddhism in religious studies. This deformed image of Buddhism still plays an important role in the perception of Buddhism in our culture and our scientific research about Buddhism. A growing body of recent scholarship has highlighted the problematic character of earlier European scholarship on Buddhism (Kinnard, 1999). By studying another culture in another historical context, we have to realise that we are categorizing the world from our own culture. Our categories cannot function as norms, but must rather be seen as examples (McCutcheon, 2001). Even if we use the categories of the other culture we are studying, it is not sure that the scientist will use these categories in the same sense as they are meant in that culture. Because he might not understand the historical background or the underlying theories of those categories, and because they become part of the context of the scientist's ideas, they might become imputed with a totally different meaning.

So if we use the categories 'religion' or 'science' we are already reducing or imputing *extra* meaning through our interpretation of Buddhism. Therefore I thought it was important to give a short overview of the history of the 'discovery' and reinterpretation of Buddhism, so that during our journey we can stay aware of our own cultural influences while studying Buddhism. This is a lesson we want to learn from the mistakes of the Victorians. We want to take this basic idea along with us, on this journey. We have to be aware of our own outlook when we take a look at Buddhism. For example some psychiatrists have tried to force the Buddhist enlightenment experiences to fit into such old diagnostic categories as depersonalization or dissociation (Austin, 1998). Sometimes we should just accept that our categories are only approximations in which Buddhism doesn't fit at all or only partly fits or that we just haven't got any right category from within our frame of thinking and we might start questioning our own way of thinking. So if we want to find out more about Buddhism we should also take a serious look at the influences of our own culture in the categories we use: their implicit meanings, their hidden presuppositions and the Western theories and controversies underlying these categories. This is what we attempt to do in this article for the categories 'religion' (part I) and 'science' (part V).

3 Victorian/Buddhist influences on scientific research today

3.1 Buddhism as object of the comparative studies of religion

Almond not only gives us an interesting lesson of history about the Victorian period, he claims furthermore that the Victorians determined the framework in which

Buddhism was imaginatively constructed and laid out the (highly biased and therefore problematic) fundamentals for the framework within which nowadays, we still perceive Buddhism in our culture as well as in the scientific research of religions within which Buddhism is nowadays studied.

Balagangadhara (1994) shows us in his elaborated work 'The Heathen in his Blindness' on the perception of the Indian traditions by the West, how this initial, biased and highly problematic religious interpretation of Buddhism became secularised. He has accused authors on Buddhism of extending protestant themes and of generalizing the Christian themes dressed-up in a *secular* garb. In this way the religious aspects were shaved off, Buddhism was no longer described from a Christian point of view, but the basic ideas, the basic structure laid out in the Victorian days got taken over by the scientific discourse, under a secular disguise. It is not a good idea to use the hypotheses derived from this discourse as a scientific basic for the study of Buddhism (Gelders & Derde, 2003). What makes the situation even more intriguing, according to Balagangadhara (1994) is that these initial ideas survived in several domains in psychology, in anthropology and elsewhere. According to him the approaches to the study of religion still take place within the framework laid out during that period. That is why he claims that the secular world is itself under the grips of a religious framework in spite of a secularisation. The very notion 'religion' is itself part of a religious framework and the scientific investigations into religion are thus conducted within this religious framework, which is not even noticed by these scientists (Balagangadhara, 1994). This religious framework is, according to Balagangadhara (1994) a de-christianized Christianity secularized to suit the modern tastes, but no less religious because of that. The belief about the universality of religion would rest on grounds other than a theoretical or empirical investigation into the question (Balagangadhara, 1994). The belief in the universality of religion is a biblical theme and not the result of scientific research according to Balagangadhara (1994). Even if religion slowly lost its hegemonic control over the intellectual life, that it once exercised, this religious belief became common currency and joined the unexamined trivia, religious beliefs turned into hypotheses, into unquestioned facts (Balagangadhara, 1994). In this way they have taken over a religious idea, but also believe that it is scientific or empirically true, due to its familiarity (Balagangadhara, 1994). According to Balagangadhara (1994) in the present study of Buddhism within the comparative religion studies, the details of the observed are only filling out the categories which were outlined by these early writers. The later descriptions did not alter the framework but merely modified the details. The categories became self-evident. It was not questioned whether Buddhism was really a 'religion' or not. Even if Buddhism didn't fit into the concept and definition of religion, many authors decided this asked for a modification of the definition of 'religion'. We will come back to this later in more detail.

The dominant opinions in our present culture about this other culture are thus not based on scientific grounds, they are still based on the framework the Victorians laid out. One of these major ideas in our culture is that Buddhism is one of the five world religions. Almond (1988) and many others (Liston, 2000) laid bare the way these ideas came into existence. Almond showed us how the construction and interpretation of Buddhism reaches back a century and a half ago.

3.2 Influences of Buddhism in mainstream science

In the 20th century another form of contact emerged between the Buddhist and western culture, which was more characterized by a real dialogue. Western people started to practice Buddhist meditation under the guidance of Asian meditation teachers and monks (de Wit, 1998). Nowadays Buddhism is practiced all over Europe with teachers trained in the classical traditions of Buddhism (Batchelor, 1994). This had its effect on the way Buddhism presented itself to the Western mind (de Wit, 1998). After the occupation of Tibet by China in 1959, for example, a lot of Tibetan monks fled Tibet and were spread all over Europe and the U.S.A. In these Tibetan traditions, monks are educated in the classical traditional way and started teaching their courses to Western people. In this way Western people became acquainted with a non-textual, living form of Buddhism. This made possible a less biased view on Buddhism. Some of these Buddhist students are scientists, whose work is strongly influenced by their acquaintance with this Tibetan form of Buddhism. In this way western psychology, philosophy, neuroscience, etc. started to look for terminology in Buddhism which could be useful to gain insight in the human being itself. This inspired three new discourses within mainstream science in the West. A very popular and well-known trend is the MBCT-movement within academic psychology. Buddhism also made its way into the experimental research of neuroscience, not only as an object of study, but as a partner in the scientific debate and in setting up experimental research. In the Netherlands there was a branch within psychology which started to study the developmental stages and the psychology of contemplative traditions as a whole, but mostly inspired by Han de Wit who got strongly influenced by Tibetan Buddhism and is also authorized by Chögyam Trungpa as a meditation teacher. The Dalai Lama, who has extensively participated in debates with well-respected Western scientists specialized in a wide array of studies, is very determined to introduce a 'science for monks' program in the traditional Buddhist education for monks, hoping to inspire some monks to start doing scientific research and bring in some of the Buddhist ideas into the scientific research of the mind.

Of course this influence of Buddhism within mainstream science has raised a lot of discussions among scientists. These discussions are still coloured with some of the arguments we found in both the religious and scientific trends of the Victorian period. We will come back to this in part V of this article.

Part I: TAKING A LOOK AT BUDDHISM WITH THE COMPARATIVE STUDIES OF RELIGION

1 Problems at the dawn of the comparative study of religions.

We will start part I with some history of the comparative studies of religions, since Buddhism did play a rather important role in the development of this scientific study which was still trying to get rid of the last traces of theology, which focused on Christianity alone. Where the universities, the study of other 'religions' was tolerated, there were still a lot of problems to overcome. We will give a short glimpse of these problems in order to make a diagnosis of them and see if we can learn something from it for the present comparative studies of religions.

The early theorists, studying Buddhism, equalled the 'experience of Nirvana' to the Numinous experience in Christianity. This allowed them to draw Buddhism in a Christian thought-frame. A hidden *a priori* hypothesis with a lot of these so-called theologians, is that all religions are expressions of one essential truth or universal religion. The problem with these theoretical movements is that they allow these authors to interpret Buddhist phenomena from their own (Christian) conceptual framework. This makes that their study of Buddhism isn't giving us a clear view of what Buddhism really is, but tells us more about the religion of these authors and their struggle trying to solve the problems and questions raised with their religion in modern times. Some are trying to prove the truth of their own religion by their theories, rather than showing a genuine interest in Buddhism. These lines of reasoning generate only a highly biased and little reliable outlook on Buddhism.

The essentialist idea, that the essence of religion is the religious experience and that this would be the same for all religions, is also a strategy, used by religious authors, to protect their religion to the reductionism of atheist scientists of religion. Since they are atheist and haven't had any religious experience, they cannot study the religious experience, nor 'religion'. The objective trend in religion studies *a priori* considers the religious experience as irrational and explains it by way of psychological clarifications such as: a regression to the symbiosis with the mother during early infancy.

The 'discovery' of Buddhism questioned some fundamental categories, methods and definitions in religion studies. The redefinition of 'religion', however had for a consequence that all kinds of social phenomena and even scientific theories can be covered by this new definition. Ninian Smart will accompany us in our analysis of these problems. His aim was to find a way to study religion in all its aspects, including the mystical experience, without reducing it, and without having to be an insider. We also want to find such a way of studying Buddhism in an unbiased way. We will see that one important step in this, is to not use Christian religious terminology in describing Buddhist phenomena, such as the 'doctrines of Buddhism', or even the word 'religion'. All these concepts are heavily loaded with all kinds of hidden meanings and underlying presuppositions.

According to Smart's diagnosis, both the theologians and the atheists are not objective, but reductionist and ethnocentric. The problem with both approaches is that they define the field of study from their own position, their own answer to the

truth-question: “yes, God exists.” (theologians), or “No, believing in God is an irrational projection” (atheist scientists). According to Smart, in the study of religions, we should avoid to let such implicit *a priori's* sneak into the research. We agree with Smart's diagnosis, however we do have a problem with his solution to our question on how to study Buddhism in an unbiased, scientific, non-reductive way.

According to Smart we should bracket our own worldview or religion. However *a priori*'s and presuppositions, related to our own worldview aren't always so visible to us. Sometimes they are implicitly present in our concepts. We will point this out in the next chapter of part I with Smith's analysis of the concepts ‘religion’ and ‘belief’. In part II we will proceed in analysing our Western categories and their underlying hypotheses about the human being, learning processes, perception, knowledge and other underlying theories in the social sciences. We will place these next to comparable Buddhist theories about perception and knowledge.

We will further discuss Smart's solution in order to be able to lay bare, underlying presuppositions and the unquestioned *a priori*'s in his theory with Smith. According to Smart, we should thus bracket the truth-question and start from the truth of the religious subject. What is important, is his phenomenological world. The human is seen as a *homo symbolicus*, and we should study what he believes. In this soft epistemology, it is not important what we believe.

We will put Smart's model of the *homo symbolicus* to the test, and check if this model can give a non-reductive outlook on Buddhism in all its diversity. We will show how there is an important aspect in Buddhism which seems to lie beyond the *homo symbolicus.* Some experiences in Buddhism are free of ideas in our head, convictions, beliefs, expectations, thoughts, words, concepts, meanings, etc. Words in Buddhism are sometimes like fingers pointing in the direction of a knowing from our direct experience. This kind of knowledge can by definition not be expressed in words. If we see religion as a set of symbols alone, we cannot capture these important aspects of Buddhism.

Again we are confronted with essentialist ideas. Some authors conclude that all meditative experiences, empty of any cognitive content, would be the same in all religions. Some authors conclude that there is a fundamental difference between reading about Buddhism and experiencing meditation oneself. The same problems of the exclusion of the outsider to the scientific study of Buddhism pop up again. Putting meditative experience in Buddhism central as the essence of Buddhism, is one extreme, but the denial of the importance of experience (as done by Sharf), is another extreme. In Buddhism, both conceptual theories and non-conceptual experience are important. Moreover we show that in the latter we can find a whole diversity of experiences which argue against essentialism, but can neither be captured by Smart's methodology.

1.1 Drawing Buddhism in a Christian conceptual framework

We will turn to Ninian Smart's analysis of some of the very obvious problems in the religion studies. Smart criticizes the narrow Western look on the mystical experience in Buddhism and through doing that unveils some fundamental problems.

1.1.1 Otto and the 'Numinous experience of Nirvana'

Smart (1986a) first directs his criticism towards Rudolf Otto's interpretation of what this Buddhist 'Nirvana' could possibly be. According to Otto, there is only one religious experience: the Numinous experience. Otto came to the conclusion that this 'experience of Nirvana' had to be a kind of 'Numinous experience'. This could thus be compared to the Numinous experience in Christianity, where one experiences the presence of an Other (i.e. God), which is very overwhelming and for which one has an enormous respect. Since 'Nirvana' is also not rational, just like the experience of Numen, they are both one and the same, even if they are present in different religions. This manoeuvre also enables Otto to design a definition of religion that would include Buddhism in the category 'religion' instead of the category 'philosophy', thereby drawing Buddhism in a fundamental Christian conceptual framework. The specificity of Buddhist experience(s) is not taken into account.

Smart (1986a) doesn't agree with Otto's interpretation of Nirvana. According to Smart, Nirvana is a state of being, in which one experiences an enormous serenity and peacefulness. According to Smart, the dualism in the Numinous experience between the self and the Numen is not present in the experience of Nirvana. Neither was this Nirvana ever worshipped by the Hinayana Buddhists (Smart, 1986a). According to Smart there is not one kind of religious experience, such as the Numinous experience. Smart speaks about the mystical experience in respect to Buddhism as distinct from the Numinous experience (Orye, 2004). He uses the mystical experience to criticize essentialist theories about religion from Otto and other authors.

1.1.2 The hidden *a priori* hypothesis of essentialism

According to Smart, Otto has a hidden *a priori* hypothesis that all religions are symbols pointing in the direction of the one and only Truth. Of course one can imply here that this underlying Truth is the Christian Truth (sic!). We can find this essentialist idea, that all religions have the same essence, with a lot of authors. The purpose of this idea, however is not scientific. It legitimates them to take another religion and interpret it within their own religious frame of thought. Smart (1986) states that the danger in this way of thinking is that we don't see the other religion in all its nuances and differences with for example Christianity, because we would then describe the religion of the other in terms of our own religion.

Another non-scientific purpose of this essentialist idea is to withdraw the studies of religion from the critical attitude of atheistic scientists who tend to reduce religion. One poses the religious experience as the essence of religion as a defence to those atheist scientists who don't want to include the religious experience in the scientific study of religions (Orye, 2001). Atheist scientists for example explained the mystical experiences of yogis as a regression to the union between the mother and baby or as a dissociation, and so on. By emphasizing the non-rational side of this experience,

Schleiermacher wants to argue that the religious experiences can't be studied in a rational or scientific way (Orye, 2004). It is necessary to study this subject with different methods. Those who haven't had such an experience themselves cannot understand it. The implication of this is that religion (and its essence, the religious experience) cannot be studied by those who are outsiders to religion, namely non-believers. Smart, however, is against this attitude of excluding the studies of religion from the scientific inquiry. For Smart 'revelation' is not an acceptable argument (Orye, 2001). He refuses to accept an essentialist definition of religion.

1.1.3 Methodological problems with Zaehner's classification of religious experiences

Zaehner, like Otto, was interested in the religious experience in Christianity and Buddhism. He wanted to show that these 'phenomena' belonged to the same 'category' of experiences. However he did recognize that there are some differences between them. So he ended up making a classification of three religious experiences (in Smart, 1986b). Even if these experiences do differ from each other, they all belong to the category of 'religious experience', according to Zaehner. Next to that Zaehner makes a link between mysticism (both Christian ànd Buddhist) and the theory of the creation of Adam and his Fall, a typically *Christian* story. As if this illogical line of thought is not bad enough in itself, he also makes the link with the scientific story of the evolution and tries to melt all this together into one and the same story/theory.

I make this caricature of Zaehner to point out a methodological problem in his work. He takes a certain 'phenomenon' from another culture and interprets it entirely through his own religious frame of thought. According to Smart (1986b) Zaehner is not interested in mysticism. He accuses Zaehner of trying to prove the truth of his own Christian theory through his categorization of religious experiences. So by putting for example the experience of Zen satori in his own conceptual framework, it receives a totally different meaning. When Zaehner is taking a closer look at the mystical experience of the Yogi, he also interprets that within his own Christian belief. In his analysis there are Christian *a priori*'s which he takes to be true: 'There is a God' 'God has acted significantly in history', 'God created the universe' and so on. Of course such kind of a categorization says more about Zaehner himself than that it would say anything about experiences of Yogis or Zen practitioners. To put religious phenomena within one's own worldview doesn't teach us anything about those religious phenomena.

1.1.4 Buddhism shakes the ground of 'religion' studies

Scholars of religion have been aware of the unavoidable hermeneutical problems involved in applying the Western concept 'religion' to traditions that are geographically, linguistically and culturally distant from our own. Especially Buddhism has posed an enormous problem for the religion studies and has in this way forced this study to question and modify itself dramatically (Smart, 2004). First of all these authors take for granted that Buddhism is a 'religion', but since it doesn't fit into the definition of religion, one has to change the definition of religion. The problem of defining 'religion' shook the religion studies at its heart and its fundamentals. The consideration of Buddhism has always been central to the discussion of what 'religion' is (Herbrechtsmeier, 1993). Buddhism could not be termed a 'religion' in the

same sense as the Abrahmanic religions, because it was inappropriate to identify Buddhism with faith, revelation, an immortal soul, and a personified Creator (Pickering, 1995). The nature of Buddhism then had important implications for the ways in which the studies of religion were conceptualized (Herbrechtsmeier, 1993).

In those days 'God' had an important place in the definition of religion. Since it was already clear that Buddhists were not worshipping any Gods, something which was basic in the three big monotheistic religions (Cabezon, 1988), there had been a lot of discussion about whether Buddhism would be a 'religion' or rather a 'philosophy' (Almond, 1988).

Otto found a solution to this problem. With his theory he could classify Buddhism as a religion by avoiding to put God immediately into his definition of religion, instead referring to the Numinous experience as the essence of religion and defining Nirvana as a Numinous experience. In the essentialist idea, the Numinous experience would thus be the core aspect of all religions. In this way he tried to bypass the problem of 'God'. According to Smart there is a big problem with this, because not all religions believe in a God (an idea still implicitly present in the Numinous experience). Smart (1995) uses Theravada Buddhism to criticize this idea (1992). According to Smart Theravada Buddhism is a non-theistic religion and the consequence of this fact is that the Western characteristic of religion cannot be applied to it.

Smart doesn't want to put God in a central place in the definition of religion, whether it would be as God as such or in the disguise of 'Numinous experience'. This was in line with many other authors like for example Durkheim (1912), who also claimed that Gods and spirits were not essential to religion, for Buddhism has no gods or spirits (Orru & Wang, 1992). Whether Buddhism really is a religion, was not questioned, so the 'religion' had to be redefined. Smarts wants to pose another definition for 'religion', in order to be able to put other phenomena (like Buddhism) into this category. Smart also wants to get rid of the essentialist position and prefers to talk about 'family resemblances' and the 'dimensions' of religion. Smart (1992b) wants to open the definition of religion to include 'worldviews' as well. The consequence of this is that not only Buddhism, but also nationalism etc. can be included into this new definition. In the very same movement of trying to fit Buddhism into the field of religious studies, the object of the comparative study of religion had become a lot broader and includes much more social phenomena than religion alone... As Balagangadhara (1995) remarks, one can classify almost anything as religion, including scientific theories and practices, using certain definitions of religion. Balagangadhara (1995) argues that stating that Buddhism is a religion is not a scientific statement, but a religious statement in a secular disguise. One positioned *a priori* that Buddhism is a religion (an unquestioned evidence since the Victorian period) in order to modify one's definition to be able to classify Buddhism into it. In the next chapter we will see how the concept 'religion' brings forth some other problems in the religion studies.

1.2 Lessons for a scientific comparative study of religions

We are especially interested in Smarts diagnosis of the problems of religious studies because we want to learn which mistakes we should try to avoid in order to be able to get a more clear view on how we could possibly try to study Buddhism. Our aim is to see how we can study Buddhism, including the experiences that the Buddhist

practices bring along, without having to be an insider and without reducing it to something which it is not.

1.2.1 The importance of terminology in religion studies

To describe a religion in terms of one's own religion is highly problematic. In the examples with Zaehner and Otto the problem is more than clear, but even today serious authors still make these mistakes. Also Cabezon (1994) stresses the importance of vocabulary in the study of comparative religions. If we use the words 'religion', 'ritual', 'virtue', 'pilgrimage', ... each word has its own history, strengths and weaknesses (Cabezon, 1994). According to him they must be groomed as comparative categories. For example when one writes about 'the doctrine' of emptiness, or 'the doctrine of no-self' in Buddhism. The word 'doctrine' has its own Christian history, which is implicitly present in the word 'doctrine'. So by describing the theory of emptiness in terms of 'the doctrine' of emptiness, we already impute extra (hidden) meaning on it, along with its underlying presuppositions, even before we started interpreting Buddhism at all.

1.2.2 Hidden presuppositions in the atheist social-scientific trend

Smart is as hard against the so-called theologians, such as Otto and Zaehner, as to their opponents. Smart applies the same criticisms to methodological atheism, as his criticisms do to the theologians. The former trend in the religion studies takes God's inexistence to be *a priori* true, instead of Gods existence. Here one implicitly gives the no-answer to the question whether something godly or transcendent exists. The belief of the insider (for example that he became one with God in his religious experience) is in this way seen as totally irrelevant. Often we find this kind of attitude with scientists who explain religious phenomena heteronomically. The human being and his experiences can be totally explained away by psychological or social factors, there is no need for religious explanations (for example 'he had this experience because there is a God'). This methodological atheism is very confronting for religious people. It is a reductionist view on their experiences.

This trend also doesn't include religious experiences in the scientific study of religion. The religious experience is *a priori* considered irrational, and can thus not be considered in the scientific study of religions. These social scientists have problems with the Christian religion because it doesn't fit in their enlightened, rationalistic worldview. According to them religion is irrational and will in the end disappear. Thus we will be a modern society. However, religion doesn't disappear, it persists (Orye, 2004).

1.2.3 Objectivity or subjectivity: two contradictory trends?

In the 'scientific' trend the emphasis lies on being objective and 'scientific', which implies that religious experiences cannot be studied. The theologians on the other hand, are non-reductionist and put the religious experiences central to the study of religion, since according to them, it is the essence of religion. The one who hasn't had such experiences himself, cannot understand it and so cannot study religion. This phenomenon can thus not be studied scientifically by the outsider, one has to experience it as an 'insider'. There seems to be an epistemological tension between these two views. Or one studies religion in a scientific fashion and reduces the

subject, or one chooses to be non-reductionist, to study religion in a subjective way and loses his scientific methodology.

Smart wants to find a solution for these contradictory trends. He pleas for a non-reductive ànd scientific study of religion, in which the religious experience can find its place (Orye, 2004). There doesn't seem to be a middle way in which we are able to study religion in a scientific way, without reducing it. Smart criticizes both trends as not objective and reductionist. Even if there seems to be a complete contradiction between these so-called 'scientists' and 'theologians', they both make the same mistake. We consider Otto, Zaehner, Eliade and Schleiremacher to be theologians because they start from a yes-answer to the question whether God exists. But in that sense the scientific trend is as theological as them since they *a priori* give a no-answer to the very same question. These contradictions can be brought back to the yes/no-answers to the truth-question of religion. They start off from an abstract view on the truth-question: their own theory, their own worldview or their own religion. One is defining the field of study from this specific position, from their own specific worldview, in which one is not always aware of one's own unquestioned *a priori*'s. We can discuss all we want for as long as we want, but whether God or the transcendent exists or not, is not scientifically verifiable nor falsifiable. To put such kind of unfalsifiable presuppositions forward is a big mistake according to Smart (Orye, 2001). To take the existence of God to be true is as unscientific as to take the non-existence of God to be true. However these are the underlying presuppositions in the field of religion studies. As such Smart accuses both of being ethnocentric. The 'theologians' are obviously ethnocentric when using their own religion as a mal to fit the other religion in to. But the atheistic social scientists are as ethnocentric, since they start off, accepting their own ideas as true and devaluating the ideas and experiences of religious people.

1.2.4 Avoiding hidden presuppositions in religion studies: Smart's solution

Smart wants to move away from an abstract theory on religions, and start off from the empiric reality of religions instead of taking one's own worldview as a starting point (Orye, 2001). According to Smart (1986b) the scientific comparative study of religion should avoid to let implicit *a priori*'s sneak into the research. The scientist should not take his own frame of thought to be *a priori* true, whether he would be Buddhist, Islamic, Christian or atheist. If we try to compare God with Nirvana, we become blind for what the Buddha has tried to teach his students (Smart, 1974). And as such we can't come to a genuine study of Buddhism. According to Smart we should put our own worldview between brackets in order to study another religion (Orye, 2004). However, we will show with Smith (in the next chapter) that we are not always aware of our own presuppositions or our worldview because sometimes these are implicitly present in the concepts or the terminology we use.

Smart proposes an elaborate solution. We should entertain a 'noo-analytic consciousness' about our *own symbols, narratives, our own presuppositions and convictions*. According to Smart our self-analysis is necessary to avoid projecting our own assumptions on the other (Orye, 2001). The more we know ourselves, the more we can come loose from it and try to identify oneself with the other. We can only take a 'methodological agnosticism' if we are aware of our own *cultural luggage.* We agree with Smart on this and this is also what we try to do throughout this article.

However we do recognize that it is very difficult to be aware of our own presuppositions, since they are so evidently true for us. We take them for granted and don't even see them as hypotheses any longer. Therefore it can be interesting to also take a look at our own culture from another point of view. That is the purpose of part II, in which we will take a look at Western theories through anthropological glasses. We also agree with Mignolo (2000) that sometimes we have to listen to the theories in other cultures, what he calls 'border thinking' in order to become aware of our own self-evident truths. In part II, we will therefore take a look at some of the underlying theories present in the area of social sciences from the point of view of Buddhism. There we will not use Buddhism as our object of study, but we will check what we can learn about our own theories by looking at them through Buddhist glasses.

The next point in Smart's solution to study religion is to first describe the phenomenology, without putting our own presuppositions in the description. Secondly, an explanatory theory should be based on this neutral description of the phenomenology. For this explanatory theory Smart proposes a 'soft epistemology' in which we are supposed to have a certain tolerance, since in religion there are seldom proofs and we should take the others belief system to be true, but between brackets (Smart, 1982). So Smart's solution to the problem of the truth-question is to bracket it. Smart doesn't want to have only eye for the externalia of religion, but in this way, also wants to take the meaning these experience have for the subjects into account (Orye, 2001). Therefore it is necessary to open the dialogue with the religious people themselves and hear what they have to say about their beliefs and their experiences. We should take the inner intentions and attitudes of the studied subjects into account. Through a 'structured empathic method' we should try to imagine the world of the other (Orye, 2001). Smart (1986d) calls these methods the 'imaginative participation' or the 'phenomenological method'.

Not *the* reality is important, but the phenomenological world of the believer. So whether this is *the* reality or not, is not the main thing, we should take it into account by 'bracketing' whether it is true or not. For the Christian, God is real, whether he really exists or not. Like this, Smart wants to have a 'full outlook' on religion. He doesn't want to reduce religion by explaining it away with social, political, economic or psychological explanations, as was done by the atheistic social trend within religion studies. Also the religious explanations of the subject (i.e. "I experienced God") should be taken into account within his 'soft epistemology.' In this way he wants to include the religious experiences into the scientific research of religion studies. This should make possible a better study of religion. This objective description of phenomenology is an important step he criticizes both the theological and scientific trend to forget.

With his phenomenological description, Smart proposes a solution for the opposition 'objectivism versus subjectivism'. In this description one should take the point of view of the 'believing' subject into account. According to Smart the *symbolically mental* aspect was lost out of sight in the studies of religion until then (Orye, 2001). He introduces a new image of the human being: i.e. the *homo symbolicus*. The inner facts of the *homo symbolicus* must be taken into account. Objectivity in the sense of the natural sciences is not appropriate for the studies of religion according to Smart (Orye, 2001). To imitate the natural sciences makes the researcher blind for the real scientific side of the scientific research of religious studies (Orye, 2001). With Smart's

proposal, we shouldn't study Buddhism as something true or false, but we should study it through the *cognitive contents* (i.e. symbolical aspects) in people's minds. Smart hopes to open up a new science of the *symbolical* behaviour of the human being, including the symbolical behaviour in secular ideologies. We saw earlier that Smart's solution to the problems in the religion studies broadens the object under study from religion to *worldviews* in general. These new starting points give Smart the possibility to strongly criticize the existing religion studies. In the next chapter we will come back to Smart's criticisms on another important author in religion studies.

1.2.5 Conclusion

In our examples of Otto and Zaehner, the *a priori*'s are very obvious, but in the present scientific study these presuppositions aren't always as clear, since they start from *a priori*'s which are embedded so deeply in our culture, that we don't question them anymore, and as such we are not aware of them any more. They are often implicitly present in our concepts or they are present in underlying hypotheses of theories within the social sciences. With Smith (chapter 2) we will be able to point out an important underlying theory with Smart and other authors. In this chapter we were mainly interested in Smart's diagnosis of the controversies and the endless discussions in the comparative studies of religion. The solution Smart proposes seems acceptable, but will this enable us to study Buddhism in all its facets? Let's take a look at Buddhism.

1.3 The resistance: Voices of Buddhists

Buddhism has already caused the comparative studies of religion a lot of problems with their definition of religion. Some of the problems have been cleared. We have learned our lessons from it, thanks to Smart's diagnosis. But in order to avoid some problems, Smart created a solution, which will not do either. Again we can find some Buddhist accounts which show the shortcomings of studying the human being as *homo symbolicus*. Our intention here is to lift only a tip of the curtain in order to show that Smart's new model doesn't fit the data he wants to describe. We will only touch some aspects of the Buddhist teachings and discuss some Buddhist accounts, without going much deeper into them. We will leave the reader a bit in mysteries about these, in order to come back to them in more detail later.

Smart pays a lot of importance to the dialogue with the religious subject in his phenomenological research. Well let's listen to some Buddhists accounts of their experiences and see whether Smarts solution can fit the data. Smart wanted to include all the religious phenomena, in all its dimensions into the research, as well as the religious experience(s), rather than a reductive approach as a consequence of the choice to study religion in a scientific way. We don't want to reduce Buddhism to one essence like meditation, but we want to go a little deeper on certain meditative experiences in order to check whether this not unimportant dimension of Buddhism can be adequately studied with Smart's new methodology of the *homo symbolicus*. In order to show the shortcomings of this image of the human being in the study of Buddhism we will emphasize in italics those terms which we connect with Smart's *homo symbolicus*.

1.3.1 Buddhism is not what we *think*

In his book "Buddhism is not what You Think: Finding Liberation without Believing", Hagen (2003) argues that Buddhism is not about what we *think* about it. He argues that the Buddha himself would have told his students not to just accept his *words*, but to investigate the mind with their own direct *experience*. In this sense, they should approach their experience free of *concepts, convictions, beliefs and expectations* (Hagen, 2003). Mostly we are dealing with our existential questions under the form of some ideas and convictions that we picked up here and there. This is what Smart's *homo symbolicus* refers to. With Smart's method of 'imaginative participation' we should try to imagine the world of the religious subjects and the *meanings* they ascribe to their experiences. However Hagen (2003) tries to explain how Buddhism is exactly not about having a bunch of *ideas* in our heads. It is exactly not about the *thoughts* we have about these experiences, as the title of his book tries to explain. It is about knowing something from our direct experience and not about the *significations* these experiences carry for the subjects. So there seems to be something about Buddhism and the experiences it generates, which seems to ly beyond this *homo symbolicus*.

Austin (1998) explains this further with his definition of meditation: "A family of techniques which have in common a conscious attempt to focus attention in a non-analytical way, and an attempt not to dwell on *discursive, ruminating thought*.". In Zen, they devalue the *discursive intellect* with its edifice of *words* and *abstract theories*. Its security comes from a knowing as a result of long experience (Austin, 1998). Zen is a living experience, its insight strikes as a fact of experience and has an impact at levels *beyond reasoning*. It does not imply adding some new and esoteric *concepts* from the outside (Austin, 1998). Anything *said* about Zen is at best, no more than a finger vaguely pointing off in its general direction (Austin, 1998). In this way religion as a set of *symbols*, as described by Luckman and Geertz, is inadequate (Austin, 1998). The definition of insight wisdom is *wordless* comprehension of the most profound significance (Austin, 1998). When Zen talks about 'no mind', this doesn't mean complete mental blankness, but when the incessant *chatter* in our minds, drops out, there is no *thought pollution*.

1.3.2 'Bare awareness' doesn't include the *homo* symbolicus

Austin is a neurologist who practiced Zen meditation and tried to theorize about his experiences from his scientific frame of thought. He (1998) writes about his own experience of this aspect of Zen, that he begins to experience longer periods of a steady, relaxed awareness. When you progress in Zen, you gradually shed your many abstractions, layer by layer. Each layer involves both language and psychological conditioning (Austin, 1998). As a neurologist, Austin is quite stunned by having these thought-free periods. He could have never imagined from his theories that an attentive brain could focus highly on nothing. There is *no cognitive content*.

So if we want to study these experiences by questioning people and trying to catch the *symbolical/cognitive* aspect of the *homo symbolicus,* we seem to be confronted with a huge problem. It seems to be exactly this symbolical/cognitive aspect of the

human being which seems to be left behind in these experiences. Austin (1998) goes even further than that explaining the task of the Zen master is to help the student shake off their routine *ways of thinking* and their *cultural indoctrinations* in order to sharpen their attentive powers so they could start directly experiencing the real world, that world right under their noses.

According to Austin (1998) these methods pointed the way to lively perceptions. Buddhists, according to him, had diagnosed a basic human problem: our brain's association networks are already jam-packed with *fine discriminating thoughts*. So a basic Zen theme is direct simple responses which quickly bypass this *mental clutter.* This mental clutter seems however to be the *homo symbolicus* which Smart wants to put central to his research. This seems to be exactly not what these experiences are about or seem to even aim at reaching the opposite of it. As Austin (1998) claims to have experienced: "... after a long while, the brain finally seems emptied of all save the fresh entry of raw sensory data and that open, mirror-like receptivity which greets it.". Where our culture and also our theories in the social sciences are quite influenced by Descartes' "I think, therefore I am.", Austin (1998) states that Zen argues for the opposite: "Not to think, is to be.". Furthermore he claims that the Buddhist method of 'bare awareness' aims exactly at rinsing the brain of *excessive associative content*. Also Han de Wit (1998) claims that the key aspect in meditation is about perceiving one's experience or mind without any *a priori* ideas. *Convictions and ideas, symbolical utterances* are obstacles for an open-minded, unbiased perception or 'bare awareness'. It is about looking with the curiosity of a young child, *unprejudiced, unconcerned*, with a certain clarity of mind, unhampered by *preoccupations* or *a priori ideas*.

1.3.3 Beyond symbols as cognitive content

In the literature as well as in the oral teachings within living Buddhism, we can find plenty of techniques, states of mind or modes of insight, without the interference of the *homo symbolicus*, without a *symbolical* or *cognitive content*, which are characterised by non-conceptuality (Williams, 1992). Meditation can produce personal transformation in a *non-cognitive* way (Preston, 1982). The Shamatha and Vipassana practices aim at letting go of the profane as well as the *religious conceptual frames* (de Wit, 2000). Traleg Rinpochee (2004), in an oral commentary on the 'Ocean of Certainty/Definitive Meaning" of Wangchoug Dordje, taught about the investigation of the nature of the mind through the practice of Mahamoudra-meditation. He tried to point out to us the importance of the difference between the theory about the mind within Buddhism and the way we experience it ourselves. We should not *think* that this restful state is clear and lucid, but we should try to find out how we *experience* this restful state. When we do this exercise and determine the root of the mind, it is important not to bring in any Buddhist technical jargon or think about something we read in a book, trying to match our experience with it. Insight comes from realising the mind has no roots, not on a *conceptual* level, though as a consequence of meditation (Traleg Rinpochee, 2004). Tenzin Wangyal Rinpoche (2001) talks about one state in Dzogchen meditation, in which we experience clarity, lucidity and insight, without the interference of *discursive thinking*. Also the Dalai Lama (2002) points out how the experience of Rigpa during Dzogchen is beyond all *conceptions* and *representations*. It is in this restful state and silence that experiences of bliss, clarity and *non-conceptuality* are coming up. Also Enlightenment in Buddhism is often described as a *non-conceptual* state of being (de Wit, 1998).

This transformation, aimed at by Nagarjuna, a Mahayana Buddhist thinker, requires a non-attachment to *mental images*, allowing one to perceive the arising and dissipation of the world without interfering with it (Streng, 1978).

In the Heart Sutra, the 84.000 teachings of the Buddha as written down in the Kagyur are summarized. According to Geshe Sonam Gyaltsen (2000), the Heart Sutra can be seen as containing the essence of the Buddha-dharma. The Heart Sutra is contradictorily describing what emptiness is about, but saying in the same time that emptiness *cannot be described.* Also Lama Karta (2004b) states that emptiness is beyond appearances, names and words. It is not to be understood in our usual way, through *words* or by *thinking,* but through meditation. *Words* are often considered inadequate to *describe* (Smits, 1997). We do need some verbal cognition to contextualise these *non-verbal* states, but certain skills cannot be learned merely through thinking, reading or reflection (Norris, 2005). Fenton (1981) recognizes that because of this non-conceptual aspect in so-called 'mystical' experiences it is often not possible to communicate about them. Therefore other means of communication have been devised to give direction without necessarily having to describe the experiences (Fenton, 1981). One of these examples is the *via negativa*, through which all of the alternative points of view have been showed to be wrong in favour of the right view. This negative argumentation enables the mystical philosopher to intend more than he can say (Lai, 1982). This way of describing is especially used in Mahayana Buddhism (Lang, 1981) and by Nagarjuna in order to explain his theory of emptiness. Next to the use of negativities, we can find other means such as contradictions, paradoxes, absurdities and even jokes (Fenton, 1981). They are intended to break up and destroy ordinary expectations of the students *symbolically structured world*. This world is exactly what Smart's method of the 'imaginative participation' aims at. Also the Tantric twilight language is meant to refer exactly to those points 'betwixt' and 'between' daylight and dark, through which it is possible to slip out of normal structures and limitations (Fenton, 1981). Mystery is part of the method. In Vajrayana scholasticism a widely used method is debate. The importance of debate however is not as we would think at first, about *ideas* and *convictions*, but rather to peel away those layers of the *deluded convictions* of the students (Thurman, 2005). Also mantras are used in a different manner than the used *linguistic expressions*. The distinction between meaningful and meaningless, which is basic to language, is irrelevant to their use (Staal, 1985). Shouting and finger raising in Zen Buddhism are used as teaching devices, which are intended to shock and awaken a student by cutting off one's *reasoning process* (Olson, 1983). These phenomena are a form of '*upaya'* (i.e. skill-in-means), pedagogical devices used to teach students.

1.3.4 The Buddhist distinction between conceptual and non-conceptual knowledge

Cho (2002) indicates that the ancient Buddhists must have been well aware of the problems that arise from the theorization of actual experiences. There is an inherent tension between *conceptualization* and concrete experience in Buddhism. The dichotomy between conceptualization and actual experience is not only found in the description, but also in their theories (Cho, 2002). They provided even a whole body of literature about the problem. In part II, we will work out this problem in a more detailed way, while using the *Sautrantika* literature. The experiential and non-conceptual aspects of Buddhism seem to be an important problem we are confronted

with, trying to study Buddhist experiences from our Western body of knowledge (for example psychology), which doesn't seem to include this non-conceptuality as a possibility in human experience.

Nagarjuna has philosophised about this subject in an extensive way. He showed systematically the shortcomings of our *conceptual apparatus*, including that of Buddhism. I would even dare to equate this aspect of the human being which Nagarjuna points to, the *conceptual aparatus* with the *homo symbolicus* of Smart. Buddhism states that the *homo symbolicus* is only an aspect of our being human, but cannot be equated with the human being as a whole. The aim of this conceptual Buddhist knowledge, however, is to point in the direction of something which transcends this conceptual knowledge. It leads towards a meditative state in which one knows in a non-conceptual way (de Wit, 2003). In Buddhism there is a distinction between two ways of gaining knowledge about something: we can *think* about our experience, which leads to conceptual knowledge and which results in a *discursive, rational knowledge* in the sense of *information* which one can own or pass on to others by speaking (de Wit, 2000). Another way is to use our awareness and try to experience things directly without any concepts. The knowledge gained from this is non-conceptual (de Wit, 2000). Understanding that what should be known through knowledge arising from meditation cannot be recognised only through *discursive consciousness* arising from listening or reflecting, there is a difference between direct knowledge and discursive knowledge (Cho, 2002). We can use *language* as a means to get to this non-conceptual kind of knowledge (Cho, 2002). If we question the religious subject about his experiences, in Smart's method of imaginative participation, we have only access to this discursive consciousness, to the symbolical/cognitive aspect of the human being (i.e. the *homo symbolicus*).

1.3.5 Essentialism revisited

Jackson (1996) also stresses the letting go of the religious doctrines in a moment which he calls the 'pure consciousness event' in mystical experiences. This experience is bereft of *phenomenological attributes* or *content*. However this leads him to conclude that consequently these kinds of mystical experiences are alike in all cultures. We don't have a problem with his claim whether the religious doctrines are being forgotten during this experience or not. This is an open question to which, currently, we have no means to affirm or falsificate. What we do have a problem with is, that this leads Jackson to conclude *a priori*, without any further scientific research, that all mystical experiences are the same if we leave the cultural, symbolical dimension out of it. Again this brings us back to the problem of essentialism. In this case, again the core of all mystical experiences are considered to be the same. Some of the old problems of the theologians, discussed earlier seem to haunt us again. de Wit (2003) points out that the intellectual study and understanding of concepts within a religion are not the same as walking the contemplative way. We should not confuse the movement of our fingers on the map with the trip itself (de Wit, 2003). However, does that make that the only way we can study Buddhism is by practicing ourselves and seeing for ourselves what it is like? This would imply again that outsiders, non-Buddhists cannot study Buddhist experiences. Here we are again confronted with the insider-outsider problem we wanted to overcome with Smart.

Sharf (1993, 1995, 1998) rightly noticed that the emphasis on experience in Buddhist practice by some Westerners had the mission of combating the threat of reductionism in the study of religion. As we saw earlier this was often the underlying problem with Christian scientists in the so-called 'theological trend' within the comparative religion studies. They tried to protect their religion against reductionism, excluding outsiders from the research by stating that the religious experience is the essence of religion and can only be understood if one has experienced it oneself. Claims of private, unmediated religious experience have often served as a strategic device to preserve autonomy and immunity to scientific scrutiny (Proudfoot, 1985). On the other hand the argument against reducing the study of Buddhism to the study of its texts, is a legitimate argument, since Buddhism seems to be indeed more than only textual or conceptual knowledge. Sharf (1995) argues that the role of experience in the history of Buddhism has been greatly exaggerated in contemporary scholarship and that such discourse functions ideologically, wielded more often than not in the interests of legitimation and institutional authority.

Sharf, in an attempt to counter-act this trend states that the category of 'religious experience' is of relatively recent provenance and that the supposed cardinal role of experience in Buddhism, is a Western myth (Sharf, 1995). As we saw earlier, the Victorians indeed overemphasised the importance of experience while ignoring other aspects of Buddhism. However Gyatso (1999), a Tibetan Buddhist, contests this statement by claiming that meditative experience was well known in his branches of Tibetan Buddhism, long before any westerner or modern Asian wrote anything about it. The tradition of meditative retreat promulgated in practice academies, called '*sgrub-grva*' as distinct from intellectual learning academies, called '*shes-grva*' (Gyatso, 1999). Inhabitants from caves and retreat centres practiced for weeks, three year retreats, or even for life. They engaged in a variety of practices, to cultivate meditative experience and the attainment of classically defined stages of the path (Gyatso, 1999). A number of special literary genres are structured expressly as manuals to be used by practitioners in retreat (Gyatso, 1999). Persons famed for their outstanding expertise and devotion to meditative practices were respected in Tibet as experienced virtuosi (Gyatso, 1999). It was an essential qualification to be a teacher of meditation to have had meditative experiences oneself. Sharf's further claim that writing from personal experience is rare in Buddhism is also contravened by the Tibetan case (Gyatso, 1999). Our opinion is that the denial of the existence of non-conceptual experiences in order to counteract the insider-outsider problem and the problem of essentialism is not a good solution. Moreover it doesn't seem to be in accord with the empirical facts within for example Tibetan Buddhism. We shouldn't deny it, but try to find other solutions to solve these problems.

By putting the experience central as the essence of Buddhism we would make the same mistake as the Victorians who put Buddhism in the category of science by emphasizing the experience of the subject as contrary to faith or belief. However, in the Sautrantika literature of the Gelugpa tradition within Tibetan Buddhism we can find how Buddhism also values conceptual knowledge as an important instrument on the Buddhist path. Conceptual knowledge is not devalued by all Buddhists as some Western people would tend to claim. Theories and discursive knowledge are not useless. This doesn't mean that we have to go to the other extreme and put the Buddhist texts central to Buddhism as some other Victorians have done. Both conceptual knowledge and experiential knowledge are important. Great scholars of Tibet, for example have emphasized the balance between these two themes

(Wallace, 1999). As a consequence of this we can neither limit our study of Buddhism to the study of its texts. Neither can we find out everything about Buddhism by studying the *meanings* subjects ascribe to their experiences, as Smart proposed, because Buddhism seems to aim at a certain kind of knowledge behind the thoughts, meanings, concepts etc. subjects have. If we want to include all these different aspects of Buddhism in a scientific study of Buddhism, we will have to look for other solutions.

1.3.6 Arguments against the essentialist idea of non-conceptual states

Let's take a look at Buddhist accounts in order to counteract the essentialist idea that the core of all the so-called 'mystical' experiences would be the same. In the mean time we want to test whether Smart's methodology can capture the *diversity* of the phenomena in the research field.

Sometimes a teacher could say to his student: "I have taught you everything which is needed to achieve enlightenment, go now to that cave and practice what I have taught you until you have reached enlightenment." (de Wit, 1998). While dialoguing with this religious subject according to Smart's new methodology, in order to map his experiences within the comparative studies of religion, what we hear him *say* the first day of his stay in the cave, and the year after, might be the same thing. But the range of his experiences certainly will not be the same. Let's take the example of Hagen (2003) of the theory that all things lack a 'self'. To understand this theory it is not enough to understand its symbolical or conceptual *ideas*, one has to *see* it in a direct way. This non-conceptual knowledge is not making use of language. So if the researcher of comparative religion studies is going to ask what he has learned or what this experience *means* to him, he can only *say* that things don't have a 'self', but the difference between this conceptual and non-conceptual way of knowing will disappear under his *words*. We could argue however, that we can just say that one of them is the conceptual understanding and the other is the non-conceptual understanding. Like that we can also describe the difference between those two kinds of understanding.

The Buddhist teachings however make a distinction between sudden flashes of insight '*nyams'* and stabile realisations '*rtogs-pa*'. A flash of insight doesn't cause a fundamental change in someone's life, but can lead into that direction. A stabile realisation however does bring about a fundamental change which is lasting (Berzin, 2000). As insights are often seen as a non-conceptual knowledge, both are non-conceptual, but still very different from each other. So in words, we can describe these two different insights as a kind of non-conceptual knowledge, however Buddhism distinguishes between different kinds of non-conceptual knowledge and states. For example they distinguish between three different kinds of '*nyams*' or experiences (Tenzin Wangyal Rinpoche, 2001). Also Cho (2002) points out the diversity *within* the experiential dimension while explaining the three stages of *marga* in Buddhism. In the development of one's insight there is no difference at all between the content of believing and that of enlightenment, but there are different levels of insight into the reality of the world (Cho, 2002). The diversity of these experiential insights cannot be captured by Smart's methodology.

We need to be able to include these different kinds of aspects of experience into our comparative study of religion. These distinctions between different kinds of non-conceptual knowledge shows that we cannot reduce all non-conceptual experiences to one essentialist core experience. In that case we would reduce the diversity there seems to be in those experiential, non-cognitive, non-symbolical, non-conceptual experiences and insights. de Wit doesn't seem to claim either that the different experiences within Buddhism can be brought back to one and the same core. On the contrary, his contemplative psychology wants to study the different developmental processes people undergo while engaging into some kind of contemplative practice. He wants to study exactly these differences. Smart (1993) was well aware of this non-conceptual aspect in Buddhism: "*... it may turn out that the Buddha's message is contradictory. So it is. If It has merit, this lies in the fact that it uses words in order to engineer a vision that lies beyond words.*". We have shown however how Smart's method fails to include the diversity of these phenomena into the religion studies.

1.4 Conclusion

We appreciate Smarts diagnosis of the problems in religion studies but we have to conclude that his solution has big shortcomings. A lot of the diversity in Buddhist experiences are being reduced if we conceptualise the human being as *homo symbolicus.* In the above accounts of Buddhists we see that a lot of the non-conceptual experiences don't include the use of thoughts as cognitive contents, words, symbols, mental images, discursive consciousness, ideas, convictions whether profane or Buddhist, language, representations, descriptions, etc. In these non-conceptual states and modes of understanding, however we can also find a big diversity of experiences, therefore we don't agree with the essentialist position, reducing all mystical experiences to one and the same experience. Another conclusion which is often made, is that since these experiences are so difficult to describe and since that is one of their main characteristics, we cannot study it in a scientific way, we can merely experience it ourselves. Even if many practitioners themselves wouldn't see the use of studying such experiences in a scientific way, without practicing it, we don't want to conclude that these experiences cannot be understood by outsiders. We still find Smarts fight against essentialism and the exclusion of non-religious people valuable. However we cannot agree with his solution. We will take a look at Wilfred Cantwell Smith's analysis of the problems in religion studies and following that we will take a look at the solution he proposes.

2 Implicit meanings and hidden presuppositions in concepts of the comparative study of religion

In this chapter, we will focus on some concepts within the comparative studies of religion in order to bring some of the hidden meanings they carry to the surface. Like that we will show how the terminology in which we think to describe a religion in an objective, neutral way, is already imputing extra meaning to it, even before we start our interpretations or explanations, resulting in a biased view on Buddhism from the start. In this journey we will be guided by Wilfred Cantwell Smith's diagnosis of these problems? Smith recognizes that a big problem in the religion studies are the endless discussions which don't seem to get a definitive answer. He steps outside of this debate to look at the discussion itself. We will follow Smith in his analysis of concepts and his proposals of new concepts because he seems to be able to take a radical new direction in the debate.

After his analysis of the concept 'religion', Smith concludes that the problem with this concept is that it already carries the idea of truth and falsity in it, and that as a term, the word 'religion' was especially used in contexts of religious pluralism. The notion 'religion' was especially used as an outsider term, which brings along a switch from the holy and the personal to an observable product; a dynamic of the heart to an impersonal system. Later the term 'religion' was adopted by the secular world, which led to the opposition between the religious traditions and the secular world. The implicit truth-question was also inherited in the same movement, which implicated that the word 'religion' was used to refer to those people who believe in something untrue. Smith also found a comparable switch in the meaning of the word 'belief': where it used to refer to a relational and personal dimension: to belove, to trust, to have faith, currently, it is mainly used to think about believers, without taking what they believe in seriously. The word 'belief' or 'belief-system', turns a religion into a symbolical system by which one can fill up one's identity. We argue how we cannot define Buddhism as a 'belief-system', and show how starting our research from this *a priori*, gives a totally different and biased view on Buddhism, as to when we recognize, the importance of 'not believing in self-created realities', and opening the way to experience things, not being under the grip of any kinds of concepts.

Smith's proposal of new concepts open the way for a radically new way of looking at religion. Smith proposes to use the concepts 'cumulative tradition' and 'faith'. In order to include the individual diversity within a tradition, in the study of religions, Smith emphasises the importance of the relational dimension and the personal dimension. In his view, a tradition contains the instruments, by which the religious human can interact in an active way, in order to come to a personal truth. In this process, the human can for example come to the conclusion that for him the bible is or is not the word of God, one can become more open-hearted or more narrow-minded. Both results can be covered by the term 'faith' in Smith's terminology. 'Faith' as a concept, includes the result of an interaction between person, tradition and the transcendence. A tradition in this view, is like a window through which we can perceive something which transcends us. The concept 'transcendence' of Smith, however, has brought more confusion than clarity in the discussion. If we take it too literally, as Smart and Wiebe did, then it is as if Smith is referring to the doctrine that God exists. However Smith claims that this concept can refer to many different things, like the richness of the human being. A cumulative tradition is more than only a symbolical system of doctrines, as Smart and Wiebe understood. Smith used the

concept ‘transcendence’ to bring in something new in religion studies, to broaden the outlook of other authors. A tradition, in his view, becomes a collection of means through which each person can discover something transcending oneself. This should be understood as a process, by which a person plays an active role (cf. to discover). An important characteristic of this learning process is that we don’t know beforehand where the interaction with the elements of a tradition will take us. The word transcendence refers to this latter aspect. Smith also uses the concept ‘human learning’ to refer to this kind of learning process, because it is not about adopting certain beliefs, it is about a process in which the whole person is affected and changes. The religion studies, thus should focus on the activities of religious subjects and the experiences these generate, and not only on religions on themselves.

Smith’s mistake, however is that he uses a Christian terminology. This is the reason why Smith is often mistakenly classified in the camp of the essentialists. Lieve Orye made an extensive analysis on how Smith was misunderstood by his colleagues. She tried to look behind his Christian terminology in order to uncover the important insights in his work, which were missed by Smart and Wiebe. We will review his concepts with Orye, who strips off the religious terminology and by this, gives a start in the direction of an interesting solution for the underlying paradigm in which the contemporary authors of religion studies are stuck. In order to make this paradigm visible we will discuss the way Smith was misunderstood by his colleagues and all the confusion this brought along. We try to take the reader into this very complex debate and invite the reader to think with us and investigate what these underlying hypotheses are. In this way the reader can feel for himself how difficult it is to identify this hidden, but very biasing underlying Western worldview.

While Smith with the concept ‘faith’ tried to refer to a personal experience in all its diversity rather than solely a belief in someone’s head, his colleagues interpreted that Smith wanted to reduce the study of religion to the study of faith, something which is only accessible to insiders. This is why Smith was classified in the camp of the essentialists. Moreover he was accused for universalizing a Christian experience: ‘faith’, to all religions. Smith and Smart misunderstood Smith’s concept ‘cumulative tradition’ as only the externalia, as expressions of ‘faith’, thinking that Smith was arguing for the study of ‘faith’ as a personal, subjective experience, rather than the expressions. This of course can only be done by insiders, so religion cannot be studied in a scientific and objective way. By these lines of reasoning, Smith was pushed in the procrustean bed of the subjectivists versus objectivists, on the subjective side. The subjective side of the subjective-objective opposition places the religious experience central and argues that religion cannot be studied in a scientific way, while the objective side, mostly supported by atheist scientists, in this case Smart and Wiebe, pose the convictions of a person central and emphasise a scientific methodology.

What is lost in this limited way of looking at Smith, is the relational aspect and the fact that Smith is talking about processes of human beings. These aspects are totally lost in Wiebe’s translation of the subjective into the convictions someone has.

What is interesting about Orye’s analysis of how Smith was misunderstood by his colleagues is that it brings some of the underlying presuppositions and hidden, unquestioned hypotheses of those authors to the surface. It were exactly these limits, within which the discussions in religion studies were situated, that Smith tried

to overcome. Orye shows us, those points in Smith's theory which were neglected by his colleagues. To understand Smith's concept 'cumulative tradition' solely as the expressions of faith, is to miss the inter-active aspect between the person and the tradition, in which the tradition is an instrument, a means by which people can change. This change could include becoming more generous, but also more hypocrite. This view, allows us to study the diversity of religious people, even within one tradition and makes that if we accuse Smith of being essentialist, we have not understood him at all.

When Wiebe tries to give the subjective experiences of religious subjects a place in his theories, by translating them into the symbolical, cognitive convictions, people hold in their heads, he is reducing religion to a 'belief-system'. This comes very close to the earlier discussed solution of Smart's *homo symbolicus.* Wiebe admits that he doesn't take up those non-cognitive aspects of Buddhism, referred to by Zen and Nagarjuna, but claims that these cannot be studied in a scientific, objective way. As discussed earlier in our critique on Smart's *homo symbolicus,* this methodology is reductive and cannot include all the diversity, present in Buddhist experiences. Putting beliefs and convictions central in the study of Buddhism is generating a completely biased view on Buddhism and ignoring important aspects in Buddhism.

For Smith, religion, was exactly not about the convictions in one's head, the experience of religious subjects, according to him, was about a lot more than only that. In his view, symbols aren't only the expressions of experiences, but are the means trough which experience is generated, based on the way different individuals relate to these symbols. Therefore the symbols included in a tradition, should not be studied in themselves, but in *relation* to what the religious subjects do with them and the experiences this generates in their lives. The concept 'transcendence' was used by Smith to transcend the limited paradigmatic view and show that religion was more than holding convictions, symbolical, cognitive contents in one's head. The interaction of the religious subject with the collection of means passed on from one generation to another by a tradition, is about a process, by which a person can change in many different ways. The underlying image of the human in this view, is that humans play an active role, rather than being a bucket which is filled up with cognitive/symbolical contents in a passive way. A tradition is a learning instrument, which cannot be studied standing on its own. It is by the interaction of the subject with the tradition, that the subject can discover something entirely new to him, and which is not present in the tradition, loose from the subject. This human learning is not just filling up the head of the subject, but changes the whole person. With Orye we can identify the cause of this confusion and bring some clarity in the discussion as well as taking steps in a new direction we can follow within the comparative studies of religion. Smith's concepts imply a totally different underlying hypotheses of what learning processes, symbols and knowledge are. These underlying hypotheses and theories will be extensively discussed in part II. In part II, we will use other authors like Ingold and Gibson to discuss the limits this underlying paradigm is posing on the studies of religion and to continue following this new route which Orye's diagnosis has opened for the religion studies.

2.1 Analysis of implicit meanings in the central concepts of religion studies

2.1.1 'Religion'

As we saw earlier, the studies of religion went through a real identity crisis to what their object of study 'religion' actually is. Buddhism confronted the religion studies with a big problem at the basis of this study: "What is the definition of religion?".

Smith's analysis of the concept

In his work 'The Meaning and End of Religion', Smith (1962) makes an analysis of the concept 'religion' to notice that this concept is a very recent idea, which originated cultural-historically in the West. Other cultures, other languages and other periods in history don't seem to know an equivalent to this term (Smith, 1962). To be religious doesn't seem to go together with having a special term to indicate this. Apparently not a lot of cultures have thought about religion *an sich* as a system standing in itself, not linked to people. Smith places the term in its original contexts and doing so uncovers an inheritance of significations, this term is carrying along. This concept is carrying along all these different significations, some of them more obvious, but some of these significations, we long forgot about, still have a very defining influence on the debate in religion studies. Next to that we use the word religion in its different significations in the debate, which causes a lot of confusion, since we think we speak of one and the same thing, while actually we do not.

'Religion'

Since the term 'religion' originated in the Western culture, this brings us back to the history of the West. The term religion was derived from the Roman term 'religio', which means: a set of standardised actions. The actions are done for the sake of the actions, without connecting it to a specific aim or belief. A very important point here, is that for the Romans there was no right or wrong practice. The term 'religion' was taken over by the Christians from the Romans, but in it already changed its contents. The actions are no longer done for the sake of the actions alone, but a certain aim was coupled to them: building a relationship with God. The confrontation with the Christians who said that they did have the right practices imputed extra meaning to the term, namely: there are right and wrong practices. So from then on, religion carries the signification of being a true or a false religion.

After the death of Christ there was a first phase in which there were different kinds of religious communities. Smith found that after this, from the second to the sixth century, there was a kind of systematisation, crystallizing of Christianity. After the fourth century the Church had conquered a hegemonic place in the society, almost everyone was Christian and there was no longer mention of religious pluralism. The consequence of this, according to Smith, is that the term 'religion' is used a lot less. The Christian religion didn't need to be contrasted as the true religion towards other, false religions. Instead Smith found the words 'worship', 'pious', 'devout', 'belief'. There were also mentions of the term religare (i.e. connecting), but according to Smith, that is not where the term religion originated from. The notion 'faith' used to be an important term in those days. The emphasis here lies on building a

relationship with God, and not on the entity of Christianity as a religion in contrast with other religions.

The origin of the term 'Religion' within and between different traditions

During the Enlightenment, there was a first confrontation between Christianity and other cultures as well as other so-called 'religions'. It is there that Smith found the use of the notion 'religion' again. The term religion is used by outsiders who observe 'other' religions. By using the term religion, one describes a reality of which one has the impression not to be a part of oneself. One uses the term 'religion' to refer to the ceremonies, the moral code, the belief system of others. It was the West that constructed the notion 'religion' for these other traditions. It was also the West that constructed Buddhism and other '–isms' (Smith, 1962). Before 1800 Smith didn't find any '–isms' in history. Smith has a problem with the '–isms', for example the word 'Buddhism' because it conceptualises a system in itself without taking the Buddha or the Buddhists into account. According to Smith the development of these kinds of concepts ('religion', the '–isms') is an inherent aspect of a new kind of or-or-way of thinking. There is no longer one Truth, apparently there seem to be other truths, so "or yours must be false, so mine can be true, or mine is false and yours is true.". This is a typical phenomenon we find in the context of the Christian tradition which claims to be the one and only truth. In China for example we don't have this kind of or-or-way of thinking, but an and-and-way of thinking. In China, there were three traditions in which people participated simultaneously. One could be a Confusionist, a Taoist and a Buddhist at the same time. All of them could be true, without the other one necessarily having to be false as a result of the truth of the other one.

Along with this use of the term, Smith also found an important switch in the contents of the term 'religion': from the personal and the holy to an observable product or a historical perceptible phenomenon. Smith is talking about a switch from a dynamic of the heart, towards an impersonal system. Instead of one system, there were many now. It became a system of believing; doctrines, worldviews and practices, which emphasised an intellectual and impersonal way of apprehending. The concept religion had been reified: "... mentally making religion into a thing, gradually coming to conceive it as an objective systematic entity." (Smith, 1962: 51). Religion as a system of convictions and doctrines came into existence after the Enlightenment period in the West. According to Smith, it became an impersonal system where the human being himself was pushed out. Here religion is no longer a part of life and society, but is something extra to it. It is no longer self-evident, but it needs to receive a name: 'religion'. Before the enlightenment the term religion also signified the feelings of the believer, it referred to his relationship with God and the universe (Orye, 2001).

The adoption of the term 'Religion' by secularism

After the Enlightenment, the term 'religion' is used by humanists and political thinkers. Here the term 'religion' has become a secular outsiders term. These outsiders helped with the origination of the concept 'religion' in its later signification in order to find a solution for the many religious wars (Orye, 2004). Here we no longer have a religion drawing its boarders to where it differs from the other religions. We are dealing with a secularisation which is opposing itself to the religious

traditions. On the one side we have the secular world, and on the other side we have the religions. According to Smith, outsiders developed the term religion in order to give a place to those people who were still talking about a kind of transcendence. Therefore, for Smith, secularism is about the denial of the transcendent within the Other. The or-or-way of thinking implicitly present within the term religion was inherited with the secularisation of it: "Or their version is true, or mine, and since mine is true, there's must be false.". So instead of: "My religion is the true one and theirs is false.", we now have: "The secularist and modern view is right and all the religions are false and irrational.". We find the consequence of this way of thinking in the Western arrogance.

Conclusion

According to Smith an important inherited signification of the term 'religion' is that it implies the or-or-way of thinking: *vera religio* or *falso religio* (Smith, 1962). It is something which we aren't as such aware of, but which still characterizes the so-called scientific comparative study of religions. Smith claims a Newtonian revolution is necessary in the religion studies, which can let go of this dichotomy of "mine is true, yours is false". According to Smith the concept of 'religion' implies this dichotomy, which results in the endless discussions which are ravaging the religion studies. Another implication for the study of religions is that the insider and the outsider observe totally different phenomena. While the insider's concern is with God, the outsider's concern is with 'religion' (Smith, 1986). According to Smith (1986) the concept 'religion' is well-designed to ignore that which the insider sees, feels, experiences: 'faith'. In this way the outsider can 'know' everything about religion, but miss the point entirely. In order to see what Smith means by the concept of 'faith', let's take a closer look at how he contrasts faith with the term 'belief'.

2.1.2 'Belief'

During history the term 'religion' has known an important change in its meaning, while being reified and secularised. This resulted in a kind of self-consciousness of one's own 'religion' as different from that of others. This term was taken over by religious people themselves: "I am a member of Christianity.". One defines himself or herself in terms of the Christian entity. The traditions hereby lose their *relational*, *personal* character and become an aim in itself, instead of a means to reach for something behind the tradition. Religions become symbolical systems by which one can fill up one's own identity in contrast with the 'other', instead of a means to build a relationship with God. The term Christianity also refers to a systematized religion with the emphasis on doctrines and intellectual constructs (i.e. beliefs) rather than on a transcendent ideal. The Christian thinkers have come to deform their own tradition towards a secular reality: instead of having 'faith' one was having a 'belief system', a conviction, a Christian identity, which is something entirely different. Instead of experiencing a relationship with God, one was now being the owner of a symbolic kind of belief system linked with a couple of *externalia*, like a church or temple, ceremonies, rituals, … Instead of building a relationship with God the Christian is occupied with the question of what it means to be a Christian in this society.

The process or reification of the term ‘religion’ in relation to other traditions went together with the change in the content of the term ‘belief’. By using the concept ‘belief’ we bring to life a series of connotations and clusters of meanings which are typical for our time, influenced by the Enlightenment period, the nineteenth century and the modern world, a signification it didn’t carry at all in other times. In his work ‘Faith and Belief’ Smith (1987) discusses the connotation the term ‘belief’ once carried and now lost. ‘To believe’ used to carry the signification of pleasure and love: ‘to believe’ was ‘to belove’. To believe meant to surrender to God. In those days people also believed the devil to exist, but if someone would have said to the priest that he “believed in the devil”, the priest would have thought the person to be a devil-worshipper. According to Smith (1987) the word ‘belief’ was then, what we would now understand as ‘faith’: to hold dear, love, cherish. The modern signification of the term ‘belief’, however is totally different. The word ‘believe’ has known a shift in connotation from: “to believe what is true”, to : “to believe something which could possibly be true”, to: “to believe in something which is probably not true at all”. For example at present we use the word in the following sense: “Yes, but in the old days, they also believed that the earth was flat.”. Here the word ‘belief’ has a totally different content than what it used to have. It doesn’t carry the connotation of love, faith, cherishing any more. It carries the connotation of something superstitious, something not true. While analysing the meaning of the sentence: “I believe in God.”, Smith (1979) found a shift from:

“Given the reality of God as a fact of the Universe, I hereby pledge to Him my heart and soul. I committedly opt to live in loyalty to Him. I offer my life to be judged by Him, trusting His mercy.”

to:

“Given the uncertainty as to whether there be a God or not, as a fact of modern life, I announce that my opinion is ‘yes’, I judge God to be existent.”

Here Smith (1979) tries to show how ‘faith’ has stayed a religious term while ‘belief’ has become a secularised term. According to him ‘belief’ became an outsider term in the 18th century, where people spoke about the convictions they could observe with other people. It became more and more impersonal. Where ‘belief’ once implied trust and ‘faith’, this dimension is now completely absent. On the contrary, presently ‘belief’ rather implies ‘believing in something which is not proven, which is evidently not true’. According to Smith (1979) this change of signification had huge consequences for the believers as well. Since the term was deeply rooted in Christianity, this change in meaning also caused a shift in the view of Christian people. The Christians no longer discussed the Transcendent, instead they discussed about ‘whether to believe in certain conceptualisations’ or not (Smith, 1987). ‘Belief as a conviction’ then became more like an obstacle to ‘faith’ instead of a stepping stone. Therefore Smith argues for a rediscovery of the term ‘faith’. Moreover, according to him the term ‘belief’ is not known in other cultures, where the term ‘faith’ is.

Smith (1987) wants to show that ‘belief’ is not a good category for the researcher in religion studies. The researcher could be tempted to look at religious phenomena from an intellectual point of view and therefore be blind for ‘faith’. The term ‘belief’

would, according to him, be designed to serve the new, non-transcendent culture. 'Belief' became the category with which sceptics reduced the religion of others. The term 'belief' means in itself, that something is not true, therefore it is merely a 'belief' in contrast with times where belief was linked to the truth. Now the term allows outsiders to think about believers, without taking them seriously (Smith, 1987). Smith doesn't want religion studies to be reduced to the study of 'beliefs' (convictions, doctrines, symbols, ...) alone, in the present meaning of the term.

2.1.3 Taking a look at 'beliefs' in Buddhism

We appreciate Smith's analysis of the problem with the terms 'religion' and 'belief'. It is also our opinion that we cannot reduce Buddhism to a 'belief system' where beliefs or theories are central to the tradition. First of all we cannot deny the body of Buddhist practices in Asia of which for example Lopez (1995) witnesses in his volume: "Buddhism in practice". So putting 'beliefs' central as the core of Buddhism by characterizing Buddhism as a 'belief-system' is not including all phenomena of Buddhism into our study. Batchelor (1997) argues in his book "Buddhism without beliefs" that even if Buddhism makes us think about a 'belief system', dharma refers more likely to practicing. He claims that Buddhism is not about something we should believe in, another '–ism', but that it is in the first place about a method. Also Stimson (2002) in his "Last Word on Learning Buddhism" complains about the fact that Buddhism cannot be passed on as a 'belief-system'.

Epstein (1999), a Buddhist practitioner and a psychologist, testified that Buddhism didn't bring him another ideology, but on the contrary, it taught him to let go of concepts and opinions and to break down constricting boundaries. de Wit (1998) pointed out in his contemplative psychology that the path of the Buddha was intended to take away the cause of our suffering by braking down the 'belief' in our self-created realities. In this sense Buddhism would lead to radically the opposite of 'believing', to a way of experiencing, which is not under the grip of concepts. According to Buddhism, the skill of happiness cannot be achieved by 'belief' or even understanding, it can only be achieved by meditation (Thurman, 1995). de Wit (1998) states that Buddhism is not based on 'beliefs', and 'convictions' under the form of ideas or certain ways of thinking, but on 'bare awareness' of reality. It goes deeper than assimilating certain Buddhist theories, it is about the discovery of a certain way of life (de Wit, 1998). Many other authors in religion studies have problematized the study of Buddhism as a 'religion' or a 'belief-system' because it confines Buddhism to the doctrinal 'beliefs' and philosophical constructs (Herbrechtsmeier, 1993).

Katz and Griffiths for example make the mistake of studying Buddhism as a 'belief-system'. Katz (1987) states that religious images, beliefs, symbols and rituals define *in advance* the types of experiences a contemplative will have. Griffiths (1986) states that by repeated meditation on standard items of Buddhist doctrine, they finally get internalized by the meditator. This implies that the experience and insights Buddhist contemplatives have, are a form of self-imposed indoctrination. Wallace (1999) counters these interpretations of meditation by arguing that the conceptually unmediated insights in the nature of the mind and reality of Buddhists is not the product of their doctrines. Buddhist cultivation of insight entails a genuine, open-minded inquiry into the nature of the mind so that the insights gained from that are derived from one's own personal experience. Padmasambhava, a respected authority

within Buddhism, emphasized first-hand empirical investigation. This stands in sharp contrast with the way Katz and Griffiths studied the meditational experiences, while conceptualizing Buddhism mainly as a 'belief-system'. It may be clear from my argumentation that we cannot reduce Buddhism to a 'belief-system', since that is already including a distorted view on Buddhism from the start. So Smith makes an important point, a point however which is not so easily understood nor easily accepted by other authors within the comparative religion studies as we will see further.

2.2 Smith's proposal of new concepts: new problems?

We will give a short description of the new concepts Smith proposes because they open the way for a radically new way of looking at religion. On the other hand his solution also brings along the old problems which have haunted the comparative religion studies since its beginning. Again we are confronted with the problem of religious terminology and essentialism. We will give an analysis of how Smith was misunderstood by his contemporary colleagues, because this will help us bring to the surface, some of the underlying presuppositions of those authors of which it is very difficult to be aware of.

2.2.1 'Cumulative tradition' *and* 'faith'

Smith proposes on the one hand a return to the term 'faith' in the old sense of 'belove' and on the other hand the category 'cumulative tradition', which would then include those convictions, the externalia, ... which are passed on from one tradition to another. The 'cumulative tradition' however should not be studied in itself, but only in relation to the human being who experiences it through 'faith'. It is that tradition, which inspires the individual to continue on his way. That is why the religion studies shouldn't keep themselves busy looking for an abstract essence of a tradition (for example the importance of Buddhist stories), it is the concrete role these stories play in the life of concrete people (Smith, 1981). The way people relate to the Quran for example can vary from person to person, within the same religious tradition (Smith, 1975). If you describe religion only as a system of convictions, rituals and so on, then these individual *differences* disappear if we don't include this *relational* dimension of traditions, or the *personal* dimension of 'faith'.

In Smiths view (1975), religions are no fixed entities that people can 'have'. They are not true or false in themselves. If we ask the question "Is the Quran the word of God?" it means we are looking at religion in itself. For Smith it is a lot more important to look at the experience (cf. 'faith') of the person who relates to the 'cumulative tradition', in this case the Quran. This *relational aspect* between 'cumulative tradition' and 'faith' is often overlooked in his theory. According to him, the cumulative tradition is an *instrument* in a human activity and not only the expression of an experience (Orye, 2004). So here we end up with a human activity in which one comes to a very individual result, through one's own experience in interaction with the cumulative tradition.

The notion of 'truth' in this view is not present in the concept 'cumulative tradition' - which according to Smith would be the case for the term religion- but in the individual after a certain process he went through (Smith, 1997). Religion as such becomes true by doing something with it. This view also leaves room for the no-

answer to the truth-question. For example a Western intellectual can study the Quran in an active way and come to the conclusion for himself that it is not the word of God (Smith, 1975). In this sense there was an interaction between person and 'cumulative tradition' and through this human learning, the person came to the conclusion that the Quran is not his thing. Just like for Smart, it was very important to Smith that the truth-question would not be answered *a priori* by the researcher in religion studies, like the theologians or the social-scientific trend within religion studies do.

Smith compares the relation between cumulative tradition and the faith of a person with a dance: we have a fixed pattern on which we can vary ourselves, though which only varies when we dance and not only by writing down the steps of the dance. We cannot study the dance without studying the dancer (Smith, 1981). Smith states that to be a Buddhist means to participate in the Buddhist process. In this sense religion is not an abstract thing, but an actuality in which the religious person participates. If we conceptualize religion as a *process*, it is possible to understand the religious diversity between traditions as well as within one tradition. Smith has named this process 'human learning'. The human plays an active role in this process.

So the subject of religion studies cannot be the religious tradition as a 'thing' standing in itself. To understand someone's religion is to find out how he sees and feels the world. So the study of religions according to Smith (1965), fundamentally must be a study of people. People are the locus of 'faith', not the symbols, not the tradition. Smith (1987) takes the example of the Hindu: the Hindu doesn't try to be a good Hindu, but he tries to be a good human being. We are the ones who put the term Hindu on it. According to Smith there are different ways of being a good human being: a Buddhist, a Jew, a Christian, an Orthodox way, ... Therefore 'faith' is a human characteristic (Smith, 1987). The question whether one is a real Buddhist or not, is not something we should solve in science, but which should be solved by religion.

The human being has all the way through history perceived a transcendence, symbolised it, and tried to live by it (Smith, 1987). The formalities of a religious tradition are at best a channel. The religious person is part of this certain kind of movement, because he believes it to point to something which transcends him (Smith, 1962). So the believer sees this transcendence, whereas the observer sees the movement who points to the transcendent. There is a difference between the '*proposition* that there exists a transcendence' and the '*recognition* that there is a transcendent' (Smith, 1987). This recognition is what 'faith' is about. Ideas are human constructs, but they can also be a window through which we can perceive something which transcends us. Faith is not about the *doctrine* in itself, nor is it believing in the truth. Smith (1987) tries to explain this with the example of "$e = mc^2$". There is a difference between knowing this to be true and seeing it for oneself. Everyone knows it is true, but there are only some selected intellectuals who can recognize it for themselves that it is true. 'Faith' is about making a truth to be one's own and to actualise it in one's life (Smith, 1997). It is then true because the person himself has proved it to be true to himself. According to Smith, 'faith' should thus not only be seen as a Christian characteristic of worship, but seen as localised in the person: "*I do not say, that faith is everywhere the same, nor do I say that it is everywhere admirable*" (Smith, 1987: 130). 'Faith' can vary: for one person it means to become more courageous, more patient, noble and so on, but for the other

person it could mean that he becomes more narrow-minded, bitter, hypocrite (Smith, 1987). So according to Smith the 'faith' of every human being is a unique version, it is the result of an interaction between himself, the tradition and the 'transcendent'. The tradition is the medium by which the human being interacts with something that transcends him. With these new concepts, Smith wants to make possible an unprejudiced study of religion (Orye, 2001).

2.2.2 'Transcendence': doctrine or concept?

Throughout all of Smith's work we have met the term 'transcendence'. But what exactly does he mean by this term? Smith (1990) notices that throughout the whole history there was a human consciousness of something transcendent and a desire to perceive this 'transcendence'. He admits however that his vocabulary to describe this *something* brings more darkness than clarity to the discussion. He claims however to only point in the direction of *something* which we should try to see for ourselves (Smith, 1990). He makes clear that by this term he doesn't want to indicate 'God', because 'God' as a concept is too vague and in the same time too definitive. Smith (1990) is rather trying to refer to the richness of the human being, which is bigger than anyone can understand. According to him, religion was only one way in which 'transcendence' was mediated, but definitively not the only way. For example 'transcendence' referred to beauty, truth and justice for the Greek and the Romans. In the West we could see the search for truth as a kind of 'transcendence'. As such 'transcendence' can refer to many different things. If we ignore this reality in the debate of religion studies we are excluding an important empirical fact, because, according to Smith, most people live with a consciousness of something transcendent.

The term 'transcendence' with Smith doesn't refer to a doctrine about an existing 'God', rather it is more a concept which helps him to take a step outside of the debate of religion studies in order to point at something more than 'religions', 'beliefs', doctrines, and so on. By this concept Smith (1980) wants to broaden the look of the scientist of religion studies from the doctrines and so on towards something else, something that transcends these doctrines. If we study a 'religion' or a 'belief system' we pay no attention to this which 'transcends' it (Smith, 1962). Smith doesn't see the transcendence as an entity which stands on itself, which would include the yes-answer to the underlying truth-question in the religion debate. It is rather a term which we should see in the context of the cumulative tradition and the individuals 'faith'. The cumulative tradition contains instruments through which the human being can learn to 'transcend' himself. It is not about faith in the idea of God. Men's faith in mediaeval Baghdad and Kyoto, in modern Jakarta, in ancient Memphis, historically, has transcended the specific concrete data by which it was nurtured and through which it was expressed (Smith, 1986). As such the tradition is not just a symbolic system of doctrines, beliefs and other externalia, but it is a collection of means through which each person can again for himself discover something transcending himself.

A religious tradition can thus be a window through which we can perceive something which transcends us: the truth (Smith, 1979). According to Smith (1990) the truth transcends us and we transcend our self while realizing this. The 'transcendent' in this sense refers to transcending oneself. This doesn't leave us with an epistemology of how we *know*, but of how we *learn* (Smith, 1990). The human being goes in

interaction with a religious tradition, without knowing where this is going to bring him, but he will 'transcend' himself, whatever the outcome may be. It is the result of an activity of a human being in relation to a religious tradition. Smiths also speaks about human learning in this sense, in which the human being opens his actual self for a potential self, through which one succeeds at transcending himself. In this specific kind of learning process, one realizes where he wants to go to *during* the learning process itself. One doesn't know beforehand where one will end up.

The concept 'transcendence' not only links the person to the tradition, it also points to a *result* of this *interaction* and the *process* of this interaction. These are two very important aspects of the concept 'transcendence'. In the interaction with his religious tradition the human being plays an active role in which he comes to his own personal truth, because he has discovered it for himself. Because of this interplay of elements the 'faith' of every human being is a very unique version (Smith, 1980). This latter aspect is something we would overlook if we study 'religion' as an entity on its own. When studying religions we shouldn't study the Quran very closely in order to come to the conclusion that it is not the word of 'God', rather we should study the activities and experiences of people who read the Quran and how this changes them.

2.3 Old wine in new bottles? A subjective versus an objective/reductive study of religion?

Could Smiths concepts 'cumulative tradition', 'faith' and 'transcendence' bring us a solution for the reductionism in the words 'religion' and 'belief' and for Smart's shortcoming in his solution of the *homo symbolicus*? There are some interesting aspects into these concepts but we notice that Smith is using Christian terminology, a mistake we wanted to try to avoid. However we have to admit that Smith brought something back into the discussion which had been left out in Smart's solution. Let's take a look at the criticism Smith received by his colleagues and the discussion following that. In analysing this criticism we hope to throw some light on underlying presuppositions which seem to divide the religion studies into a subjective and an objective camp. One camp is putting people's 'beliefs' central and emphasises the scientific study of religion, while the other camp is emphasising the experiences and the subjective study of religion. The presuppositions underlying this divide forces some authors to force Smith's ideas in this procrustean bed and stay blind for some important aspects in Smiths theory.

2.3.1 Smith accused of essentialism

As we learned earlier in Smart's analysis of the problems at the dawn of the comparative studies of religions we should be aware of the terminology we use. If we use a Christian terminology to describe phenomena in other religions we are imputing meaning on those phenomena from our own reference frame and doing so we don't have a neutral outlook on them from the start. This is the criticism Smart (1974) has on Smith's concept 'faith'. It is a Christian concept which is here being universalised. 'Faith' doesn't have a universal applicability and is as such used in an ethnocentric way. Smart doesn't agree with this because the diversity among the different religions is too important. He points out the differences between for example the Numinous experience and the mystical or contemplative experiences (Smart, 1992). These are not to be classified under the same category 'faith'. We agree with Smart that Smith is making a big mistake when using a Christian

language. But next to that we are prepared to look behind his Christian terminology to see what Smith tried to show us. In this we will be guided by Lieve Orye's analysis of Smith's work. We want to see whether his theory brings us any solutions next to the problems it also contains. We don't want to throw out the child with the bathwater.

Smart (1974) also criticizes Smith's statement in 'The Meaning and End of Religion' that religion stops, there where God appears. According to Smart's interpretation, Smith sees only one purpose for religion: God. The concept of God however, is not present in all religions and especially not in Buddhism (Smart, 1992). Smart places Smiths theory next to those of Otto, Zaehner and other theologians, stating that the core of all religion would be the same, the differences are only present in their symbolical explanations. It is not because God and Allah for example are conceptually different, that this would mean that they do refer to the same being. Religion studies should not *start* with essentialism (Smart, 1974). Whether religions would point to one and the same universal core is an empirical question and should not be answered *a priori* by theologians (Smart, 1997). Such an answer should be based on extensive empirical research. It is only a hypothesis and not a fact on which we can build our comparative studies of religion (Smart, 1974).

Smith (1979) does recognise the non-theism of for example Buddhism. He argues that the Buddhist system, rather than centering on beliefs (for example "God doesn't exist"), is one that leads individuals to 'faith' and hence to seeing for themselves the truth, the Buddha discovered (Smith, 1979). So by 'faith', Smith doesn't mean the same experience as Christians have. *He wants to point to something else*: a personal kind of seeing for oneself, instead of 'believing' a doctrine. So the accusation of essentialism doesn't seem to be justified. Smart (1974), however believes that Smith states that all religions are having the same core, namely 'faith'. Smart takes Smith too literally and keeps staring at Smiths religious language. Therefore he cannot see that in fact Smith is trying to make another point. By 'faith' Smith is trying to capture the *personal* experience of the religious individual in all its diversity.

Smart also criticizes Smith's concept of 'cumulative tradition'. According to him, Smith has a negative view on 'tradition', because he makes a distinction between 'cumulative tradition' and 'faith'. Smart believes that Smith wants to reduce the study of religion to the study of 'faith', without paying any attention to the externalia of religion, such as the practices, the art, the doctrines, ... while considering religions as reifications (Orye, 2001). Smart accuses Smith to reduce the study of religion to the study of 'faith' in order to make the study of religion and for example the study of the religious experience inaccessible to outsiders. Smart doesn't agree with the idea that the scientist would first have to convert to a tradition in order to be able to study it from the inside (Orye, 2001).

Also Wiebe understands Smith as would the *real* 'belief' be about the inner experience of the individual (i.e. 'faith') and not about the external expressions of it. He refuses to use more personal, non-objective categories such as 'faith'. Wiebe (1992) acknowledges Smith's discovery about the term 'belief', namely that the word in the modern sense wasn't always as central to the religious person's life in history and used to signify something else, like 'to belove'. He recognises that religion is more than only a bunch of 'beliefs' in the consciousness of the religious subjects (Wiebe, 1992). However, Wiebe (1977) doesn't want to throw the concept 'belief'

overboard. He states that it is not because 'belief' isn't a religious category that we shouldn't use it in the scientific study of religion. He interprets Smith's rejection of the term 'belief' as a symbolical rejection of the scientific study of human life in general. Just like Smart, Wiebe (1992) accuses Smith of essentialism because he understands Smith's rejection of the term 'belief' as a reduction of the study of religion to the study of 'faith'. Therefore Wiebe also positions Smith at the side of the theologians (Orye, 2004). Wiebe believes that Smith states that religion cannot be studied by the *expressions* of 'faith'; that it can only be understood when one experiences it himself. Smith and Wiebe seem to completely contradict each other on this point. Smith wants to avoid that 'faith' would be equalled to its externalisations (i.e. its cognitive and symbolical elements). Wiebe on the other hand would do everything to make a scientific study of religion possible, even if he doesn't want to limit it to the study of cognitive and cultural elements (Orye, 2001).

Wiebe (1977) furthermore accuses Smith of seeing religion as something personal and *esoteric* and as such only a *personal subjective* experience and that there wouldn't be any *objective* characteristics (i.e. rituals, social institutes, beliefs, doctrines, ...). This implies that one has to be an insider to study religion. Wiebe is making this conclusion based on Smiths view on truth: namely that truth is not present in propositional claims or doctrines. Later Smith (1997) will try to explain his view on truth again. Truth is not present in *doctrines*, but in *persons*. We cannot understand the way religion is lived by people, if we only focus on the doctrines (containing the truth or not). In that case, we would be reductionists, according to Smith[1]. By localising the truth in persons, Smith (1997) tries to avoid the endless discussions about the truth-question of religions. He doesn't plea here for an objective view on truth (as present in 'beliefs') but for a personal view on truth (as present in the people themselves). He points out that 'faith' is about a *process* in which a person discovers some kind of truth for himself. This process is what he wants to give a place in religion studies.

As a consequence of misunderstanding Smith, Wiebe (1992) classifies Smith on the subjective side of his subjective-objective dilemma. Studying the subjective inner experiences of religious people is not possible if you are not an insider. This would mean that only those who met the transcendent in their lives would be able to understand it. Wiebe (1992) refers hereby to Smith's statement about religious life that lies in relation to that which cannot be observed (Smith, 1962). For Wiebe this means that an objective, scientific study of religion wouldn't be possible (Wiebe, 1977 & 1992). According to Wiebe (1992) this would imply that religion cannot be

[1] See Smith's comparison of 'faith' with the Islamic 'tasdiq' in: Smith, W. C. (1997). 'A Human View of Truth.' In *Modern Culture from a Comparative Perspective,* Albany: State University of New York Press, 99-120.

studied *conceptually* and can only be lived *personally*. Wiebe (1992) accuses Smith of rejecting an objective notion of truth and wanting to replace it with a moral, spiritual notion of truth. Wiebe's (1977) opinion is that we shouldn't talk about the commitment of the individual alone, but also about the ideas, interpretations and doctrines. Wiebe sees these objective aspects as expressions of the subjective (Orye, 2004). That is why, according to Wiebe, we can translate the subjective in the convictions someone has. In this sense, the transcendent is a part of someone's ideological context. And it is only when the transcendent has been translated into a doctrine, that it can find a place in religion studies. We have mainly focused on Smart's and Wiebe's criticisms on Smith, but also other authors are of the opinion that we should choose between the objective or the subjective. For example Kvaerne (1972) finds it self-contradictory to speak of the 'objective' and the 'personalist' as supplementary. For him, they are radical alternatives between which one must choose.

2.3.2 Smith misunderstood: response of Smith

Smart and Wiebe misunderstood Smith's concepts 'cumulative tradition' and 'faith' as two different things, with no relation to each other. Moreover the 'tradition' would be the expression of 'faith'. Hereby Wiebe equals 'cumulative tradition' to a 'belief system' with doctrines, symbolical and cognitive aspects. As we explained earlier, this is however precisely not what Smith meant by this term. Based on this interpretation, they concluded that Smith wants to reduce religion studies to the study of 'faith' as opposite to the externalia (what the other authors equalled to the concept 'cumulative tradition'), which would only contain reifications. Smith (1980) himself is trying to correct this. He claims this to be a conclusion based on misunderstanding his theory. According to Smith (1980) 'faith' and 'cumulative tradition' cannot be separated, they need each other and influence each other from both sides, they are constantly in *interaction* with each other. Belief is a matter of inner faith of an individual and the cumulative tradition is not just the expression of this, as Smart and Wiebe understood it.

This inner faith could vary from becoming more patient, more courageous, and so on to becoming more narrow-minded, bitter or hypocrite (Smith, 1987). "I do not say that faith is everywhere the same, nor do I say that it is everywhere admirable" (Smith, 1987: 130). The rituals, doctrines etc. of a cumulative tradition are the *means* by which people are related to something which transcends those externalia, whether this is God, Nirvana, patience or hypocrisy (Smith, 1980). His position is that religion houses the interplay of these various factors. By those two concepts Smith hopes to do justice to all these aspects within religion studies (Smith, 1986). His attempt has been to strive towards a comprehensive study that will omit neither the objective nor the transcendent components. So 'cumulative tradition' and 'faith' both need to be studied together.

As we saw earlier Smith created the concepts 'faith' and 'cumulative tradition' to render visible the *differences* between people *in their practices* of religion. If we accuse Smith of essentialism, we must have completely misunderstood him. Smith tried to explain something else, than that all religions would have the purpose of getting in contact with God.

2.3.3 Religion as a 'belief system': the human as *homo symbolicus*

The whole discussion around Smith's concept 'trancendence', seems to bring us back to the same problem we had between the theologians and the social-scientific trend in the comparative religion studies. Again we seem to have two unovercomable opposites between a subjective and an objective trend. Here this opposition takes another form. Or we put the convictions, beliefs, cognitions, symbols and worldview central in the study of religion in order to come to a scientific study but thereby reducing its subject. Or else we study religion in its totality without giving the doctrines a central place in the study, but leave science behind in the same movement. First we want to take a look at how Wiebe wants to give a place to the 'subjective' side in his scientific study of religions.

The solutions of Smart and Wiebe to the dilemma

As we pointed out above, Wiebe defines the objective as an expression of the subjective. That is why we can translate the subjective experiences into the symbolical or cognitive convictions someone has. In this sense, the transcendent can receive a place in the religion studies as the content of someone's 'worldview'. Wiebe (1977) situates the religious experience within a rational reflection. He admits that Zen and Nagarjuna argue for the fact that religion transcends the cognitive. However Wiebe (1977) states that Nagarjuna's theory-free approach situates itself within a certain 'worldview'. Even if Zen Buddhism shows to be a non-cognitive religion by trying to break through the control of language and thoughts over the mind, this is based on a certain rationale within a 'worldview', namely: the doctrine/claim/theory that language and thoughts are confusing the ultimate and true reality (Wiebe, 1977). Wiebe (1977) recognizes the point of the non-cognitivists to be true: religion is more than a cognitive interest in the world. Wiebe (1992) however doesn't see any way to study these non-cognitive, non-symbolical or non-conceptual experiences in a scientific, objective way. We can study the worldview and the signification the experiences carry for the subjects, these are the objective phenomena which we can study in a scientific way (Wiebe, 1992). The *essence* of religion for Wiebe is and stays therefore the doctrines and the 'belief-system' (Wiebe, 1977).

Here Wiebe's approach comes close to Smart's view of the *homo symbolicus*. Just like Smith, Smart pays a lot of importance to the religious aspects of religion and he wants to give them (for example the religious experience) a place in the scientific study of religion within a phenomenological description. Therefore he proposed a method of 'imaginative participation' in the dialogue with the religious subject. On the other hand he also wants to give a place to religious explanations (such as "God was the cause of my religious experience") in the scientific study of religion, but only based on a 'soft epistemology', in which the truth-question is bracketed. In this way however, Smart also puts the cognitive and symbolical convictions of people central in the study of religion. Just as Wiebe, he translates them as being the expressions of the experiences.

Symbols as conceptual ideas in our heads?

The solutions of Smart and Wiebe are however precisely making the mistake Smith tried to avoid, namely the reduction of the experiences of people into the convictions, or the 'beliefs' they hold. In his empirical analysis of the term 'belief' he points out an important meaning that this term doesn't hold anymore now. He tried to bring this meaning back into the research by introducing the concepts 'faith' and 'cumulative tradition', as we reviewed in Smith's response. The underlying difference between the views of Smith versus Wiebe and Smart is their view on what symbols are. Smart and Wiebe see symbols as expressions of experiences. Smith (1974) doesn't look at symbols or the meanings they carry in themselves but at what symbols do in the lives of people. The symbol receives meaning in how the people relate to them, they don't carry meaning in themselves. The symbol is a *means* and not the *aim* in itself.

Smith is misunderstood as if he doesn't want religion to be the study of symbols, but the study of the experiences of religious people. However Smith has a positive attitude towards the study of symbols. We should study those symbols in relation to the persons that use them and the experiences it brings them. For example if one person confesses his sins to the priest, he might see it as taking guilt upon his shoulders and he has to do some prayers as a punishment. This might confirm for him that he is a sinner and he starts feeling bad about it. For another person the prayers could mean that he can get in touch with God and be purified by that. In this way he might feel relieved and happy. Orye (2001) uncovered this *relational aspect* of the tradition and the person, which was often neglected in the work of Smith. Symbols are objectified and looked at standing by themselves, as if the symbolical meaning would be present in the doctrine or the ritual itself (Orye, 2001).

This view on symbols is in accordance with the data we collected from the Buddhist tradition. de Wit (2000) points out that the mystical language in Buddhism is rather used as a device in order to transform the person into a certain direction, rather than that it should be understood as a description of an experience. Also Traleg Rinpochee (2004) pointed out that language is only instrumental: intellectual understanding is important, but not the end in itself, it is just an image in our mind and not based on experience. This mental image could become a barrier to a non-conceptual understanding of the mind. Therefore we shouldn't bring too much conceptual baggage but stay very direct with the practice of meditation.

Orye (2001) doesn't agree with seeing symbols as static and existing on their own. Therefore questioning the truth of the bible or some of the fantastic Buddhist stories is not the main aim of religion studies. The truth-question is not always so visible, but often underlying the discussions in this field of study. Often one starts the research with a yes- or a no-answer on the truth-question, even if this is not mentioned in the research. What we should study in the comparative religion studies is what the act of reading the bible or listening to these Buddhist stories does to the religious subject, how they *relate* the subjects to a reality or a reality within themselves. How come for example that living according to the bible makes some people to judge other people as sinners, while it connects someone else with a more loving attitude towards his fellow human being. So for Smith this truth-question, implicitly present in the term 'religion', is irrelevant, this is what he meant by locating the religious truth in the person and in the human interaction with the many

traditions there are (Orye, 2001). By 'faith' he wanted to recognise that the existence of God is not found in the empirical reality but is to be found within people (Orye, 2001). In that sense both "No, God doesn't exist!" and "Yes, God exists, I can feel it", can be termed as 'faith' in the sense of the personal truth of Smith. Smith wants a science of religions which doesn't reduce it, and which has eye for the typical human aspect of it.

Wiebe is blind for this interaction between the 'cumulative tradition' and 'faith' because he draws Smith's concepts within his own paradigm (Orye, 2001): "... my argument then, is a critique of his view from within a widely accepted Cartesian analytical framework of thought" (Wiebe, 1992: 50). We can indeed recognise the classical Cartesian bifurcation of mind and matter in Wiebe's ideas. He seems to distinguish the universal experiential ground of religion on the one hand and its diverse culturally bound manifestations on the other. Smith (1974) accuses Wiebe to be stuck within a paradigmatic way of thinking. He tries to force Smiths ideas in the procrustean bed of his paradigm. Wiebe only proves however that Smith's ideas cannot be forced into this paradigmatic way of thinking. And by doing so anyway, one is deforming what Smith tried to imply. By reducing experiences of individuals to cognitive contents in someone's head, he misses a lot of the diversity and differences between religious people. By putting these cognitive, symbolical contents central in the study of religion we can even accuse Wiebe of being an essentialist himself, since in this way he will miss a lot of the diversity in his field of research.

2.3.4 Transcending essentialism: opening the way for diversity

In the text above we have not gone deeper into Smith's concept 'transcendence'. We will explain how this concept was misunderstood by Wiebe and Smart and we will try to look behind the religious language in order to see what Smith implied by this. Smith stated that he wanted to point to something which transcends Wiebe's limited paradigm of cognitive-symbolical contents in the religious person's head.

The transcendent is not about the truth

Both Wiebe and Smart interpret Smith's transcendence as a statement about reality (within Smith's belief system or worldview). However Smith is not trying to point here towards a certain reality, a certain *content* alone (for example "I believe in God"). Smith rejects the scenario whereby we should give an answer to the truth-question of religions. Where Smart brackets the truth-question in a soft epistemology, Smith looks at the context surrounding the problem of the 'transcendence'. He locates the truth within *persons* rather than within *religions*. This includes also a personal *engagement* of the person. He has to do something before he comes to the conclusion that something is true or not. Smith sees this as a *process*. According to Smith, the diversity of the religious experiences of people is to be found in this relationship between the human being and the transcendent (Orye, 2001). In this sense we should understand his concept of transcendence rather as a verb: 'to transcend', which refers to a *process of learning*. The person is using his cumulative tradition (for example the bible) in a process. It is an instrument by which the person can transcend himself. He can undergo some kind of transformations.

He has discovered the bible to be true, because he learned something through this process. We shouldn't stay stuck here with the fact that the person learned the bible

to be true. Instead we should direct our attention to the process by which this person came to this conclusion. This yes- or no- answer to the truth-question is pointing in the direction of a *learning process* (Orye, 2004). In this sense we shouldn't see 'faith' as a universal essence beneath all religions, but as that which contains all the *differences* between human beings in the process of practicing religion. It shows the differences between different traditions, between different people and even within the same person, but on different occasions.

In this process the person opens his actual self in order to learn something, without knowing where he is going to end up. In human learning the person only discovers in which direction he is going, when the learning process has already started. Therefore the term 'transcendence' points to something we don't know. We don't know where our interaction with the tradition is going to take us. This means that if a Christian starts to study the bible, he also risks to come to the conclusion that for him the bible cannot be true. It is the continuous human activity which turns the bible into a holy text, not the book itself. The holy bible in this sense is a *relational* term, relating the person, the book and the transcendent in this process (Orye, 2004). It is from this essentialist idea of the holy bible, that scientists even searched for holy texts in other traditions. The mistake they make here, is that the holy text is seen as an essence in itself. The human activity and the variations this brings along, are being kept out of sight. Traditions aren't passed on because of their beautiful texts, but because people have undergone personal changes, they have experienced certain processes of transformation (Orye, 2001). It is no longer necessary to overcome the insider-outsider problem. Because of Smiths concept 'transcendence' as hypothesis it is not any more about the 'essence' of the religious experiences, but about what it does with a person. We are not talking any more about the *contents* of the experience but about the *processes* it brings along. When Otto talks about the religious experience, he points towards a certain content, when Smith talks about the transcendent, he tries to point towards a process.

A process in which people use symbols as tools

By seeing the transcendent as something personal, we make place for an image of the human being, central in a dynamic process in which the human can transcend his own situation, by playing an *active* role in it. The person is no longer an empty bucket in which certain contents are being carried over from one generation to another, but he is an engaged person himself. It is within this view of transcendence, that the cumulative tradition cannot be only an expression of someone's experiences, but has to be seen as, as we explained above, a *learning instrument*, a means by which the person can transform himself, learn something. According to Orye (2001), Wiebe and Smart are totally missing this instrumental character of the 'transcendent'. By not including this element into his study, Wiebe excludes the *engagement* of the human being in the world. Wiebe does have eye for the symbolical character of the rituals and the practices. But Smith argues that this interaction includes more than: 'A is being symbolised by B', for example that a religious experience would find its expression in a painting (Orye, 2001). If we then say that the inner feeling gets the expression in the painting, we cannot really understand what the inner feeling was about. We cannot really study that inner feeling except if we felt it ourselves. This is what Wiebe than calls the subjective position. The symbol in Smith' view, is something which opens possibilities for people in order to transcend themselves (Orye, 2001).

Smith doesn't want to see the 'cumulative tradition' and 'faith' from a dualistic point of view, in which one is going to divide the subjective and the objective, as Wiebe and Kvaerne do. Smith wants to put the spotlight away from religion as an *object* of study, towards the *activity* of the religious person, for example the Christian lifestyle (Orye, 2001). Traditions in this view are 'learning traditions'. They are no longer a system of beliefs, rituals and moral values, with which the people are being filled up as if they were empty buckets, after which they can *implement* these *cognitive contents* (Orye, 2001). Tradition is more likely about passing on 'learning tools' by which each generation can again give shape to his relationship with the transcendent (Orye, 2001). Traditions pass on learning devices, instruments that can bring about change in a person. The 'knowledge' of the tradition cannot be passed on to an individual standing by itself. In 'human learning' one is not just putting knowledge in one's head, rather it is a personal learning process one has to go through oneself and by which the *person* changes himself (Orye, 2001).

'Human knowledge' is not something which can be passed on directly, it asks for a learning process in which the person is actively involved. 'Humane knowledge' cannot be seen apart from the tradition, nor from the person. It is this element which is not seen in Smith's theory and which is misunderstood over and over again. Smart and Wiebe are blind for this hypothesis in Smith's theory. It is not about the truth of a tradition, but about what kind of changes they bring about in the lives of individuals (Orye, 2001). The different image of the human being underlying to this, is that there are no fixed developmental stages, which would be the same for everyone. The variations in religion are also present in the way people are learning. Orye (2001) pleas for a hypothesis which is formulated in non-religious, scientific language. In this way Smiths hypothesis and the possible diversity we can find in the learning processes of people can be adequately evaluated and tested.

2.4 Diagnosis of the underlying unquestioned hypotheses

Smart and Wiebe (1992) rightly criticized Smiths religious language. The words 'transcendence' and 'faith' cannot be used in the comparative religion studies because they have implicit Christian significations (Smart, 1974). The fact that the category 'belief' is not a religious category is indeed not a reason at all to refuse it as a concept in the religion studies (Wiebe, 1992). However we do appreciate Smith's analysis of the term 'belief', because it lays bare a certain dimension of religions which is now lost by the word 'belief' and which should receive a place within the religion studies: namely the way the individual experiences a specific tradition and how this influences and changes the individual (i.e. 'transcends' him). Wiebe and Smart stay blind for this hypothesis in Smith's 'transcendence' and see the concept as purely theological input in the discussion.

Smith steps outside of the paradigmatic way of thinking of Smart and Wiebe. A crucial factor in their ways of thinking are the hidden hypothesis underlying their theories. These are *unquestioned ideas about what the human being is, what learning is, what symbols are and what knowledge is, ...* This is what limits the space for discussion for Smart and Wiebe. This is the frame also through which they interpret Smith's statements. Wiebe's underlying hypothesis about learning is that it is about certain contents, conceptual ideas, which can be put into someone's head. For Smith however, the learning process is one in which the human being is playing an active role, using symbols as instruments. According to Smith both the objective

as the subjective trend make crucial mistakes, namely that they see the human being as either too passive or too active. The person steps into the process without knowing what the result of it will be. He only finds out the direction into which he is heading, while being fully into it already. Next to this the learning process also changes the individual himself, it is not just about 'getting to know something', as in learning some *cognitive-symbolical ideas*. Smith however has no other way than talking about these characteristics of the learning process, but with his religious language.

We do appreciate these elements in Smith's analysis of concepts and in his proposal of new concepts. However we cannot find ourselves completely in Smith's proposal for the comparative study of religion. Where Smith has some interesting ideas about the interaction of the human being with a 'cumulative tradition', where there is an opening for 'human learning' in which the individual can 'transcend' himself, we cannot accept his proposal for turning the scientific study of religion into a 'human learning', by which the scientist himself also changes as a result of studying religion. In this sense his science would indeed be turned into religion. His mistake, according to Orye (2004), is that he tries to bring the experiences *themselves* into science. What we could do in a scientific way however is to map and study the learning processes of these experiences (Orye, 2004).

Part II: LOOKING FOR OTHER WAYS TO LOOK AT BUDDHISM

In the previous we have mentioned an underlying paradigm which is restricting Wiebe, Smart and other authors in their ways of thinking. It makes them interpret Smith's proposal for new concepts about 'cumulative tradition' and 'faith' within the boundaries of their paradigmatic thinking as 'objective' versus 'subjective' or: scientifically studiable or not. We first drew out the entire discussion with all its misunderstandings in order to show how invisible the influence of this paradigm really is. I am sure we have confused the reader often, once you might have totally agreed with Wiebe and Smart, and at other times you might have thought, "Those guys really are wrong, how could I have agreed with them.". At least that is the process I went through while studying the authors. That is because we are all very influenced by this underlying paradigm in our thinking. It is something which is really permeated throughout all of the social sciences and our Western culture as well. This paradigm I am talking about, is about certain presuppositions about the human being, learning and knowledge of which we are ourselves not aware any more.

Now let us finally reveal what kind of paradigm we are speaking about. We are speaking about cognitive psychology. We will explain below what statements this paradigm holds and up to which point we can trace back those statements in the history of the West, namely what are the historical-cultural influences. Even if this is a very widely accepted frame, not only within psychology but also within philosophy, the neurosciences etc., we did find some shortcomings in it with Gibson and Ingold. Ingold (2000f) is directing an appeal to anthropologists who are interested in non-western ways of thinking, to adopt a critical attitude towards the fundamental assumptions of Western thought and science. This is exactly what my education in the comparative cultural sciences was about. We didn't as such direct our outlook towards other cultures, but directed it towards our own (Western) culture and the way this influences our views on other cultures. In this way I was confronted with certain assumptions I was not aware of. That is why this article is not only about Buddhism, but also about the way we look at Buddhism from within our culture, with our cultural frame of reference, with the filter of our body of knowledge, which is deforming Buddhism and imputing extra meaning to the subject, without us being aware of it. I wanted to try to bring the one who is studying (i.e. the Western culture) into the picture as well. So at the one hand, this article is a study about Buddhism and on the other hand we take a self-reflexive turn in which we reconsider our own concepts and their implicit meanings, their hidden presuppositions and unquestioned underlying paradigmatic issues. Ingold (2005) remarks that these paradigmatic issues themselves are all too rarely addressed in mainstream science. They are widely accepted, hidden presuppositions, of which everyone assumes them to be true and therefore don't even notice them any more as hypothesis or statements, they have become self-evident truths instead. If something looks a little like it, we will classify it in a certain category without hesitation, but being blind for the relativity of our category. For example when I was trying to write part II of this article, I tried to put some structure in my way of bringing these elements to the readers, but it was really difficult to make the distinction between: this belongs to the category 'culture', this belongs to the category 'human being', this belongs to the category of 'knowledge', while this part belongs to the subtitle of 'learning' and 'skill'. It was a real struggle to try to make some distinctions between these different

categories. That is because Ingold is exactly questioning our self-evident categories and connecting them all back together -instead of carving them up in different pieces- in his theory. He is showing us how these concepts are interwoven and dependent on each other.

We don't want to be so radical as to totally reject the cognitive view on the human being as Gibson did. But we do want to show with Ingold how this view can be limiting in our outlook on phenomena in other cultures. We want to put this cognitive view of the human being within the Western historical-cultural context, without claiming that this covers every aspect of all human beings in the entire world, in all cultures. With Gibson and Ingold we hope to open a way for some alternative interpretation of some concepts and as such try to withdraw some of the concepts from within the boundaries of the cognitive paradigm. In this way we attempt to develop novel ways of understanding religious and cultural diversity (Balagangadhara, 2005). After this analysis and reinterpretation of some concepts we will be willing to try to apply them again to the Buddhist traditions.

In part II we are going back to the core of our Western way of thinking. The image of the human being and the accompanying views on symbols, nature, culture, learning, memory, tradition and knowledge that this implies, originate within this widely accepted paradigm which is influencing mainstream science and the social sciences. Thus we hold still at important crossroads. It is not our intention to reject this way of thinking. We do criticize however to accept that this cognitive view on the human being covers all aspects of the human being. With Gibson we open the way towards a forgotten aspect of the human being, without reducing the human being to Gibson's view neither. That is why we will include an intermezzo chapter which has the potential of bringing these two views together in a certain middle-way-view. Earlier in this article we mentioned how difficult it is to see our own blind spots, our widely accepted and no-longer-questioned cultural accepted ways of thinking which are underlying our theories within the social sciences. Mignolo (2000) has pointed out how enriching it could be for Western thinking to listen to 'border thinking'. He is talking about ways of thinking on the borders of the Western worldview, outside of our own Western ways of thinking. They could help us to see our own blind spots and to go further beyond those limitations. This is what we hope to do in this chapter. While looking for a middle way we will consult the Buddhist psychological view about perception in the Madhyamika (literally: "the middle way") and Sautrantika literature. In that intermezzo chapter we will not take Buddhism as an object of our study but as a partner in the discussion about how we should see the human being in all its aspects.

In chapter 1 we discuss cognitive psychology, because it is the source of all the underlying hypotheses and unquestioned theories about human beings, learning processes, knowledge, ... implicitly present in concepts in the religion studies. We contrast this view with the ecological psychology of Gibson. This view on perception enables a new direction in the concepts of religion studies, which will give a less biased view of Buddhism. We will discuss the consequences of both psychological theories on concepts in religion studies in chapter 2. In chapter 3 of part II, we will compare both seemingly opposite psychologies and theories of perception, with the Buddhist theory of perception and Buddhist psychology. We will see how Buddhist psychology offers a middle way in which both ways of perception receive a place.

1 Contrasting the Cognitive Paradigm with an Alternative View

In this chapter we will contrast the theory of information-processing of cognitive psychology with the theory of information-pickup in ecological psychology. First we will outline the theory of information-processing, which explains how the human being represents the environment in his mind by processing the raw data coming from the senses and constructing mental models, cognitive schema's, scripts, ... in the mind. In this constructional process, memories and phantasies are applied to the raw data. The interaction with the environment, skills and perception in this view, are mediated by symbolical, conceptual, cognitive models in the mind. This implies that human beings have no direct unmediated access to the world. Where initially mental processes were taboo in scientific psychology, these theoretical models derived from the computer, are not adequate to account for all aspects of human life. The relation between the human being in active engagement with his environment is also neglected in this theory. The dominance of symbolical and cognitive representations is also questioned by many authors. The transformation, learning and enskillment inherent in human experience, loose from cognitive contents, are not taken into account in this theory. The interaction with the environment in skills is for example explained by procedural knowledge in the form of a cognitive model, mediating between the human being and his interaction with the environment.

We will try to retrace the origins of the emphasis on the symbolical, and the idea of representations in the Western culture. We will show how these ideas are characteristic of our Western culture and its Christian roots and how this view doesn't seem suitable to universalise and to apply on practices in other cultures. For example the concept of 'mutual conversation' in Andean agriculture refers to a fine-tuning of the senses to the environment, unmediated by cognitive representations. It is more likely about the human being in active practical and perceptual engagement with the environment. We will see with Ingold how the point of departure of representational thought is the mind detached from the world and we will put this idea back in the context of Descartes' time.

We will discuss how Gibson's ecological psychology showed that not all perception can be explained by the mediation by cognitive representations, especially in the immediate attunement on the environment in skills. He reintroduces the importance of bodily motion in the lived-in-world, in the process of perception. Gibson emphasises the active role of the perceptual systems in the fine-tuning on the environment and the picking up of information (as opposed to the senses as passive receivers of information). Attention pervades the whole input-output loop, rather than merely being located in the head. In this view we find a different notion of perception, as an *act* of information pick-up, an *act* of attention in which the person plays an active role. Depending on the kind of activity and our mastering of it, we will be attuned to picking up information. Perception is no longer something that happens in the head, but consists of the intentional movement of a being in the environment, an active orienting process of adjustment and reorientation of the perceptual systems. The human has direct access to the world, instead of having to reconstruct the world in his head. Direct perception as a phenomenon of experience is possible, without any mediation by cognitive schemes. Meaning is generated in the relational context of people's engagement with the environment.

Learning is no longer confined within the limits of the procrustean bed of cognitive-symbolical models, namely the transmission of representations, but can be understood as the education of the attention and the perception. Attention and perception are skills that can be improved and educated. 'Knowledge', in this model, is not present in the transmission of representations from one generation to the next. These are only aids in the education of the attention. Knowledge is distracted directly from the environment. This theory will prove very useful in understanding Buddhism as a tradition, containing tools and aids that facilitate a process in the Buddhist, resulting in a perceptual kind of knowledge. We will apply both the relational aspect of the individual in active interaction with its environment, the fine-tuning of the perceptual system and the education of the attention to the Buddhist meditational practices (in part III).

Gibson is too radical in throwing the cognitive theory of mediated perception completely overboard. In chapter 3 of part II, we will outline the Buddhist psychological theory of perception in which both ideas of mediated and direct perception can go perfectly together, but are conceptualised in a subtly different way, as in cognitive and ecological psychology. Moreover in Buddhist practice, direct perception can be fostered by meditation, so people can learn to gain control over the mixing of memories and phantasies with the perception of present situations and in the process, get a much clearer view on reality.

1.1 Cognitive psychology and mediated perception

It is not our intention to explain in detail what cognitive psychology is about. We want to situate cognitive psychology in the history of the social sciences and the typical Western cultural-historical influences. We will discuss the main features of cognitive psychology in order to be able to show how this view on the human being and learning processes influences many concepts and theories throughout the social sciences (see chapter 2 of part II).

Psychology has known a real struggle in order to become accepted as an objective *science*. When John B. Watson launched the behaviourist revolution in 1913 the subject of psychology was not the operation of the mind but rather the examination of *objective*, observable behaviour (Gardner, 1987). The goal of this approach was mainly to gain a scientific status among the other sciences. By the late 1940s it became clear that this behaviouristic paradigm could not capture all aspects of the human psyche, but it took the advent of computers and the rise of information theory to grant legitimacy to the cognitive studies (Gardner, 1987). Cognitivism, currently the main paradigm in psychology, inherited the positivist programme of modernist science (Pickering, 1995). Initially the cognitive approach was liberating psychology from the constraints of behaviourist orthodoxy (Varela, Thompson & Rosh, 1993). No longer were psychologists restricted in their explanatory accounts to events that could be observed in one's behaviour. Psychologists were now willing to consider the *representation* of *information* in the mind (Gardner, 1987). Cognitivism seeks a unified, formal theory of the rational component of psychological functions such as language, perception, memory and thought (Pickering, 1995). These subjects were taboo before the paradigmatic switch from behaviourism to cognitivism.

1.1.1 The information-processing theory

Cognitive psychology is dominated by the information-processing approach (Anderson, 1995). This approach traces the flow of information through the mind. We can divide this process in mainly two steps. The senses are the starting point, since that is where the information of the environment enters the person. Because the world of experience is composed of a tremendous array of discriminably different objects and events (i.e. stimuli), we would soon be overwhelmed by the complexity of our environment, therefore this information passes a selective filter (Bruner, Goodnow & Austin, 1956). After that, the processing of the information can start. Anderson (1995) compares this process with letters coming through the mailbox: they are sorted according to region and the letters for a particular region are shipped off to their destination. The data coming from the senses are processed by a range of mental devices in the mind, to generate images or representations, internal models of an external reality. We can understand this process as symbolic computation-rule based manipulation of symbols (Varela *et al.*, 1993). Many theorists agree that past experience is brought to bear on the sensory inputs, which means that memories are somehow applied to them. In this model, sensation occurs first, perception occurs next and knowledge occurs last, this entails a progression from the lower to the higher mental processes.

Human knowledge can be categorized as declarative knowledge and procedural knowledge. Declarative knowledge comprises the facts we know, like for example one's encyclopaedic knowledge. The procedural knowledge comprises the programs of the skills we know how to perform (Anderson, 1995). This model is not merely an extrapolation of observed variations in the immediate surroundings, it is a model of the future requirements which will mediate the engagement in a skill (Bruner, 1968). The model contains the process of programming an action which is to be brought to realization (Bruner, 1968).

The underlying presupposition in this model is that there is always a contents which needs to be processed, namely information. This information is about the mental representations, mental constructs like symbols, ideas, schemas, rules, images, scripts, frames, mental models. Knowledge in this paradigm is about *symbolical*, language-like information which needs to be processed by symbolical mechanisms. Therefore human cognitive activity must be described in terms of symbols, schemas, images, ideas and other forms of mental representation (Gardner, 1987). This mental activity, described in terms of *representational language* includes for example problem-solving and classificatory behaviours (Gardner, 1987). Concept attainment is a process in which one learns what features of the environment are relevant for grouping events into defined classes. The categories in terms of which man sorts out and responds to the world around him reflect deeply the culture into which he is born (Bruner *et al.*, 1956). The *symbolical significations* things in the world can carry for a person is called 'culture'. Anthropology has access to the fullest range of beliefs, practices and symbolic systems (Gardner, 1987).

1.1.2 Mediated perception: the mind as a creator

This psychology can thus explain why different people interpret similar situations in very different ways. It is because of the different kinds of *mental/symbolical models* they use to filter reality. This is very obvious between people from different cultures but also between people from the same culture. For one person, a certain place can be connected with a lot of good memories, while for the other person it might carry a rather dark signification. Let's take Heisenberg's (1924) remark when he came to Kronber Castle: "The castle changes as soon as one imagines that Hamlet lived here." (Bruner, 1986). As scientists, we believe that a castle consists only of stones. None of this should be changed by the fact that Hamlet lived here and yet it is changed completely. The courtyard becomes an entire world, we hear hamlet say: 'to be or not to be' (Bruner, 1986). This example explains how our perception of the environment is *mediated* through our symbolical, conceptual, mental models, frames, schemes containing our ideas, images, …

In order to show how we store mental models in our heads that guide our perception, Bruner (1968) let people say what they saw on play cards. When they saw a card with five black hearts between a set of normal play cards, they tended to regularize the cards to make them conform to their canonical pattern. According to Bruner, this proves how people would take whatever to extract from the stimulus input and to read the rest from the model in their head. People tend where possible to assimilate whatever is seen or heard, to what is expected (Bruner, 1986). In this way we structure reality to our expectancies. The nervous system stores models of the world that conforms to expectancy. This allows the human being to let the attention flag a little, look elsewhere. Surprise, in this sense, is a response to violated presupposition (Bruner, 1986). Let input violate expectancy and the system is put on alert. This implies that we don't perceive reality in a direct way. On the contrary, what we perceive consists of reality, but also of accompanying markings of its conformity with or discrepancy with those mental models. Bruner (1986) gives the example of how his driving behaviour in New York is guided by such mental models. This is why he has a feel for what to expect, this is what makes that he usually sees what he is looking for, no matter what else he might miss.

In this way we also create products of mind and experience them as reality. Most of what we deal with in the social world could not exist, except for a symbolic system that brings that world into existence (Bruner, 1986). The world of nature is shaped in our mind by conceptions of it, formed in the discourse with others. The world of appearance, the very world we live in, is created by the mind with language or other symbolical systems (Bruner, 1986). Wherever one looks at the creation of realities, we see the complexity of symbol systems (Bruner, 1986). That what we take as the world is itself no more nor less than a stipulation couched in a symbol system. This means that human beings would have no direct encounters with the world (Bruner, 1986) but have to figure it out, or construct it, from the raw material registered through the senses.

Even our direct experiences are assigned for interpretation to ideas about cause and consequence. The world that emerges for us is a conceptual world. The mental models both generalize and specialize: we develop theories about kinds of people,

kinds of problems, kinds of human conditions, ... These folk theories come from the folk wisdom of the culture in which we grow up (Bruner, 1986). When we are puzzled about what we encounter, we renegotiate its meaning in a manner that is concordant with what those around us believe (Bruner, 1986). Only the newborn child, that doesn't possess these concepts yet, can have direct encounters with the world (Bruner, 1986).

Data resulting from the continual bombardment of the body's sensory receptors by external stimuli, are inherently chaotic, so that any order that the perceiver claims to behold in the environment must be contributed by his own mind, through the organization of the raw sensory input into higher order structures or representations (Ingold, 2000g). Lacan[2] (1973) states that it is typically human that our perceptual input is immediately coupled to *words* (what he calls 'signifiers'), which implies that the mind is creating a psychic reality for us. Lacan (1966) calls this psychic reality 'a language's universe of sense' in which 'the universe of things' will come into line. It is that what happens behind the retina (in the mind) in perception, which is giving consistency to the picture, it is not simply a representative overview of reality and it is that which distinguishes human societies from natural societies (Lacan, 1973). So language plays an important role in this process. At the perceptual level, reality only appears as marginal (Lacan, 1973). In this sense, the nature of the mind is that it is constantly creating (Lacan, 1973).

1.1.3 Language: the stepping stone from 'nature' to 'culture'

In psychoanalytic theory we can find an elaborated theory on language and its role in the development of the child and in perception. According to the psychoanalytic theory of the subject-becoming (about the development of the child), the baby is at first born in a Real in order to become a talking being, later on. This includes a jump from 'nature' to 'culture' (Quackelbeen, 1993), in which we can consider the acquisition of language as a second birth, a birth in the Symbolic world. From being born in language, a process of language acquisition is started, in which the subject also builds up his identity *and* his reality, i.e. his own psychic reality (Verhaeghe, 1994). The baby starts off from unmediated perception (Mooij, 1997) and develops into a speaking being. This process starts with the naming of the body and the body parts and will finally spread out into big associative complexes, or phantasms (Vehraeghe, 2002). This basic phantasm is a cognitive-affective scenario through which the subject approaches itself (Lacan, 1961) and the world and which installs the basic structure through which the person will later perceive the world. The typical human aspect of consciousness would be that this initial unmediated perception is coupled to *words* (Verhaeghe, 2002). This is the kind of consciousness which distinguishes humans from animals. This is the point where psychoanalysis

[2] Even if psychoanalysis is very different and is often radically opposed to cognitive psychology, we can recognize these same ideas about mediated perception.

meets cognitive psychology. Where psychoanalysis speaks about phantasms or associative complexes, other psychological theories speak about cognitive schemas, attachment styles, representational constructs (Verhaeghe, 2002). The difference is that psychoanalysis claims that a lot of this is unconscious and next to that, also has a theory about the aspects of human psychic life, which can't be captured by this symbolical system. It would take us too far to go deeper into this.

1.1.4 Appreciation and criticisms

One of the major contributions of cognitive psychology was to restore the mental operations as the subject of psychology instead of reducing psychology to the study of input and output (i.e. observable behaviour), while putting the mental processes between brackets. Mental processes weren't considered a legitimate subject of a scientific study of the mind. While at the height of the behaviourist era, few scientists dared to speak of schemas, images, rules and other mental structures and operations, mental processes were now no longer put in a black box. The triumph of cognitivism is that we can now speak of *representation* on essentially equal footing with these entrenched modes of discourse, with the neuronal level and with the socio-cultural level (Gardner, 1987).

However these representational assumptions and concepts are now taken for granted and permeate the cognitive sciences (Gardner, 1987). Whatever their relevance for the study of human rationality or problem solving, models derived from the computer are not likely to be adequate to account for all the uses of the mind (Gardner, 1987). We may try to determine how computer-like we are, but the ultimate verdict may be 'not very much' (Gardner, 1987). To restrict cognitive science to one form of cognition is to refashion the subject of the mind to fit the current tools of study (Gardner, 1987). We should not try to fit everything human into this cognitive-symbolical model of the mind. We should stay open for new data and not let our perception be guided only by our own theories of mind, while trying to assimilate the empiric data into these models. This is what we try not to do in this article. We should stay open for other possible operations by the mind, that don't fit in the information-processing approach of symbolical cognition representing the outside world inside of our head. We should also be careful when using concepts that are permeated by this approach, along with its view on the human being, learning processes and knowledge. We will analyse the concepts 'tradition', 'learning' and 'knowledge' (in chapter 2 of part II) in order to show the influence of the cognitive paradigm and try to find alternative views to the phenomena 'tradition', 'learning' and 'knowledge'.

More and more voices rise in order to show the shortcomings of the cognitive approach. We will restrict ourselves to some authors only. Gibson (1966, 1967, 1979) attacked this approach and showed in his experiments that not all perception of reality can be explained by notions such as mental representations, mental operations, interpretative schemas and the processing of information. His ecological psychology tries to put some forgotten aspects back in the picture. He draws our attention back to the importance of the person's *bodily motions* in the world, the active role of the *senses* and the role of the *environment*. These are three aspects which seem absent in the cognitive approach. Tim Ingold, an anthropologist, was strongly inspired by Gibsonian psychology. He has extensively showed how the cognitive approach does not cover all aspects of human beings in all cultures. He

criticized the exclusion of the role of the *surrounding context* from consideration among cognitive scientists. Ingold (2000e) emphasises the *processes of development* in a field of relationships, rather than that the cognitive processing mechanisms would be internally pre-specified (in the human DNA-structure) or externally imposed. In this he refuses to take sides in the nature-nurture debate. For example the language acquisition device is not a mechanism innately present since birth, which only needs to be filled up in development. The child rather acquires a skill in a context of *sensory involvement* (Ingold, 2005). Ingold has strongly criticized the limitations of the cognitive approach in describing learning processes like skills. We will come back to this extensively in chapter 2. Also Edwin Hutchins (1995) considered the computer as a model for human cognition highly problematic because the human actor and his relation to his environment are being separated. According to him the hands, the eyes, the ears, the nose, the mouth and the emotions all fell away when the brain was replaced by a computer.

Francisco Varela, a neuroscientist, and his colleagues (1993) have also showed how the *embodiment* of knowledge, cognition and experience are ignored in this approach. The body as a lived, experiential structure and as the context of cognitive mechanisms has, according to them, been virtually absent from cognitive science. They also question the dominance of symbols, language, concepts and mental representations in cognition. This is indeed the core of cognitive science and is often simply taken to be cognitive science itself. In the past years however, several alternative approaches to cognition have appeared, like for example the connectionist and the enactive model. According to Varela and colleagues, the new sciences of mind need to enlarge their horizon to encompass both *lived human experience* and the possibilities for *transformation inherent in human experience.* This view comes close to Ingold's theory of skills (chapter 2.2.3 in part II).

1.1.5 Western historical-cultural influences in cognitive psychology

The authority of the 'Word'

One of the dominant views in cognitive science is that representational thought is seen as basically *symbolical*, conceptual in nature. The idea that knowledge is mainly or exclusively theoretical and symbolical in nature is influenced by our cultural frames of thought, rather than based on empirical evidence. The importance of the word can be traced back to the Greek roots of our Western thought. The Greek word *logos,* signifies both 'word' and 'reason'. This was followed by the important role of the bible and its canonical texts in Western history. Later the invention of the press in the West stands in contrast with oral cultures (Ingold, 2000d). According to Ingold writing is not the same as speaking. The visual implies that you stand apart from the written knowledge. Knowledge doesn't affect you as a human being. Also to Balanganghadara (1985) one of the characteristics of Western culture is the kind of importance it attaches to language. It is believed that everything knowable is also sayable, even though various thinkers like Kant, Hayek, etc. warned against such a presumption. Still our Western education system places heavy emphasis on expressing knowledge in language. In our culture, knowledge or wisdom is primarily theoretical and symbolical in nature.

Cognitive representation versus 'Mutual conversation' The primacy of symbols however, is not so evident in all cultures, as it is in the West. Other cultures even

seem to question the presumption that our relation with our surrounding world and our perception of it is mediated with symbolical frameworks, as is claimed in Western psychology. Agriculture in the Andes, for example, is based on a very different relationship between nature and the human world, than agriculture in the West. And this relationship is expressing fundamental differences in relating to the world in both cultures. We take this as a case study in order to show the specific Western way of conceptualizing the world as very different from how these people live in their world.

The Andean peasant considers all things in his environment as 'alive', from humans, to animals, plants, rocks, rivers, mountains, stars and so on. Everything has the same status as the human being and everything is seen as in dialogue with each other: the human community, the rain, the mountains, the potatoes, ... (PRATEC, 1998). The frequency, intensity, smell and colour of the wind tells the farmer about the weather to come. The wind is dialoguing with other beings as well. Nature speaks to the farmer, as well as he speaks to nature. He is trying to fine-tune as much as possible to her signs in a 'mutual conversation'.

According to cognitive psychology 'mutual conversation' would be impossible, because the very structure of the mind is characterised by mediated perception through mental models and representations. From their confrontation with our Western ways of thinking, the Andean people developed a critical thinking[3], from the borders of our Western hegemonic designs. In this, they try to show the differences between their ways of living and our Western interpretations of their ways of living. They have tried to show that 'mutual conversation' is not comparable to representation, which is verbal and conceptual (PRATEC, 1998). It is rather about a direct perception of phenomena, to get in relation to the environment in a lively interaction. It is about a conversation, unmediated by conceptions of the world. For them, nothing stays static, and unchanged. That is why a fixed methodology does not fit in their way of life. They keep a continuous and open conversation with the Andean world, which means both humans and nature. There is no dualism between human and the world. All the activities in the Andean community are the result of this 'mutual conversation' and not as the consequence of an externally imputed plan. The making of the irrigation canals for example is the result of a dialogue between the coca plant, the rocks, nature on every moment. The way the irrigation canal is receiving its form is dependent on the specific circumstances and is not just a repetition of what has been done before or an implementation of a mental model. They adapt the canal to the natural forms of the mountain and the rest of the landscape.

This stands in sharp contrast with the concrete construction of irrigation canals by Western developmental aid in the region, which are constructed without respect for the landscape. In Western agriculture, the farmer is led by advice from experts and

[3] These Andean people are grouped under the name PRATEC.

scientific methods, rather than his own observations with his senses. Western knowledge consists of linguistic and conceptual *representations* of that-which-is in the mind of the individual (PRATEC, 1998). The Andean people see this Western way of thinking as that-which-is, is being reduced to that-which-is-represented-in-the-mind, as if it doesn't really exist. To do this, there was made a distinction between the inner and external world, between representation through the word and that which is being represented. Maurice Merleau-Ponty (1962) and Bigwood say that representational thought is characteristic of Western philosophy. This representational way of thinking became prominent in modern, post-Cartesian thought. To represent means to put that-which-is in front of a subject which represents. According to PRATEC (1998) representation exists only if a distinction is made between the human community and nature. In this case, the human being is no longer part of nature itself. For the Andean peasants this is a very strange way of being in the world. For Western people this is considered a self-evident truth, which doesn't require any extra explanation.

A 'mind' detached from the 'world'

According to Ingold (2000c) the basic contrast between physical substance and conceptual form is deeply embedded in the tradition of Western thought, within which is situated the project of Western science as the objective study of natural phenomena starting off with Descartes. Neither the concept of 'nature' nor 'culture' however is a given truth and they cannot be free from the biases of the European culture in which the concepts are constructed. In this modern global view, knowledge is standing apart from the world and is being applied to the world (Ingold, 1993). In the West we are making a cognitive reconstruction of the world in a unique way, using representations.

According to Ingold (1993) an important cultural influencing factor (next to Descartes dualism) is our view on the world, as the globe from the perspective of an astronaut. The earth is literally being experienced as 'out there', beneath our feet. Ingold (1993) puts this in sharp contrast with the pre-modern image of the world from the perspective of *within*, as we saw with the concept of 'mutual conversation' in the Andean lifestyle. By thinking of the world as a 'sphere', surrounding us, we are positioning the human being *in* the world. In his study of the hunter-gatherer-cultures, Ingold (2000c) shows how the human being is immersed in an active practical and perceptual engagement with the world, a world in which they have a well-defined part to play. It is not something 'out there', they see themselves as involved in an intimate relationship of interdependence with the plants, the animals, ... The hunter-gatherers, as the Andean people, do not, as a rule, approach their environment as an external world of nature that has to be grasped conceptually and appropriated symbolically within the terms of an imposed cultural design. The separation of mind and nature has no place in their thought and practice.

In contrast with this, the point of departure in Western ontology is that of a mind detached from the world. We do not belong to the world as a part of it (Ingold, 1993). The claims of the Andean people about their relationship with their environment and their way of life, radically questions these cognitive psychological models. We literally seem to have to formulate, to build an intentional world in consciousness prior to any attempt at engagement (Ingold, 2000c). While in the West it is about a process of mental representation, for some other cultures,

apprehending the world is not a matter of construction but of engagement, dwelling, taking up a view in it (Ingold, 1996).

Tracing back the origins of: 'Thought' representing the 'world'

Let's go back a while in history in order to find the origins of the Western way of conceptualising 'the human being versus the world'. Modern thought originated in an authority-crisis. Where the Christian religion had for centuries assured the One and Only Truth and long had a hegemonic position about what the truth was, science tried to conquer an autonomous position as separated from religion. Secularisation was a very specifically European solution to very specific historical-culturally situated problems in the West. Descartes is taking part in this historical-cultural revolution, trying to pose a separate category 'science', which can answer to the demands of absolute certainty, in a period where a lot of the existing certainties staggered (Orye, 2005b). This category had to be autonomous and free from all possible traditional influences. The only option Descartes saw was a timeless, universal absolute truth (Orye, 2005b).

In this view on knowledge and truth, we can trace Christian roots as well, but in a secularised form (Orye, 2005b). We can recognize the Christian separation between this world and the divine realm. The panopticized nature of the transcendent *res cogitans* in its relationship to *res extensa*, the material world, parallels the relationship between God and its creation so much so that the word 'idea' was first used by Descartes to refer to men's minds, having previously referred only to God's (Varela *et al.*, 1993). These are the roots of the Western Gods-eye-view; an objective, neutral point of view on the world 'out there'. The body and the world -*res extensa*- were made into an object for the thinking thing, the mind (Appfel-Marglin, 2000).

Descartes' conclusion, that he was a thinking thing, was the product of his question, and that question was a product of specific practices, namely, those of disembodied, unmindful reflection (Varela *et al.*, 1993). Cartesian dualism is not so much one competing solution as it is the formulation of the problem. In this way, Descartes put in place the philosophical basis for the recovery of certainty. It was left to others to both operationalize and insitutionalize the recovery of certainty. This new science inherited the Church's age-old conviction of possessing the One and Only Truth as well as its missionizing impetus (Appfel-Marglin, 2000).

In cognitive psychology we can clearly recognize this Cartesian bifurcation of nature which divides the world up in: the fundamental constituents of the universe invisible to the eyes (known to science) on the one hand, and the other part which is constituted of what the mind has to add to the basic building blocks of the world in order to make sense of them, namely the psychic additions, on the other hand (Latour, 2005b). Thus, for Descartes perception exists in two stages. The essence of seeing doesn't lie in the eyes, but in what the head does. It is the soul which sees, or put into more modern words: the essence of seeing lies in the cognitive processes (Ingold, 2000j). Cognitive psychology claims to represent a universal truth about the human mind and is blind for its specific Christian roots.

1.2 Ecological psychology and unmediated perception

1.2.1 The theory of information pick-up

The ecological psychology of Gibson rejects the information-processing theory of cognitive psychology. His theory of information pickup purports to be an alternative to the traditional theories of perception, rejecting the assumption that perception is the processing of inputs (Gibson, 1979). Ecological psychology brings us an entirely different notion of perception, information, learning and knowledge. The way Gibson uses the term 'information', it is not something that has to be processed in a disembodied head. Ecological psychology redirects perception and knowledge in the practical contexts of people's engagement in their lived-in environment instead of localised in the mind. The point of departure is the developing organism in its environment as opposed to the self-contained individual confronting a world 'out there'. In this way the Gibsonian psychology about human-environmental relations dispenses with the conventional dichotomy between naturally given and culturally constructed worlds. Cartesian dualism is not repeated in this theory.

In cognitive psychology it is supposed that sensation occurs first, perception occurs next, and knowledge occurs last. This entails a progression from the lower to the higher mental processes. Gibson (1966b) takes a totally different turn. He doesn't talk about senses, but about perceptual systems. The senses and their receptors can only receive stimuli passively. According to Gibson, the eye belongs to a perceptual system in the sense that it is part of a dual organ, a pair of mobile eyes, set in a head that can turn, attached to a body that can move from place to place (Gibson, 1979). The perceptual system is never *stimulated*, but instead can *go into activity* in the presence of stimulus information (Gibson, 1966b). Perception is not a *response* to a stimulus, but an *act* of information pickup (Gibson, 1979). In Gibson's view the perceptual system plays an active role and is not a passive receiver which passes on the received information to the brain, while the brain is extracting the information from this processing.

The traditional conception of a sense is almost wholly abandoned in this approach. We do not perceive stimuli, the stimulation of the hair cells in the inner ear cannot be heard (Gibson, 1979). In the traditional approach stimulation by light is considered the basis of visual perception. The inputs of the nerves are supposed to be the data on which the perceptual processes in the brain operate. Gibson (1979) makes a different assumption: stimuli as such contain no information, brightness sensations are not elements of perception and the inputs of the retina are not sensory elements on which the brain operates. Sensations do not constitute the data for perception, rather what the perceiver looks for are constancies underlying the continuous modulations of the sensory array as one moves from place to place. We do not see patterns of light, but objects in our environment, because we move about (Ingold, 2000f).

In the case of a sense, as conceived in the cognitive approach, the process of attention occurs at centres within the nervous system, whereas in the case of a perceptual system, attention pervades the whole input-output loop (Gibson, 1979). Attention in this view is a skill that can be educated (Gibson, 1979). Perceptual

awareness, unlike sensory awareness does not have any discoverable stimulus threshold. It depends on the age of the perceiver how well he has learned to perceive and how strongly motivated he is to perceive (Gibson, 1979). The implications of this view are enormous, it means that perception is something which can be learned. This opens a lot of new possibilities in the way we look at human activity in general and specific human activities in certain cultures, like for example in Buddhism. We will work this out in detail in chapter 2 of part III.

1.2.2 Unmediated perception

Direct perception is what one gets from seeing the Niagara Falls, as distinguished from seeing a picture of it. The latter kind of perception is mediated. When Gibson (1979) asserts that perception of the environment is direct, he means that it is not mediated by retinal pictures, neural pictures or mental pictures. Information as understood in this way, is not transmitted or conveyed, does not consist of signals or messages, and does not entail a sender and a receiver. In this view, the question whether hearing or seeing is physiological or psychological is a wrong question because they see the sense as an organic passage between body and mind. Instead we should speak about a *phenomenon of experience* (Ingold, 2000d).

Direct perception is the activity of getting information from the ambient array of light. Gibson (1979) calls this a process of information pickup that involves the exploratory activity of looking around, getting around and looking at things. We need to see the world, in which events can happen, *not* as frozen. We move in an environment (Gibson, 1979). There is a continuous interaction between organism and environment. Having neglected this is what cognitive psychology has been criticized for extensively and righteously. Perception is not something which happens in the head alone. This is the way it has been studied by the traditional perception-psychology, and also the way they set up their experiments in laboratories with spots of light in a darkroom (Gibson, 1947). Instead, Gibson proves his theory with outdoor experiments in open air, in order to distinguish between what happens at passive receptors and what is available to active perceptual systems. This experimental set-up delivers us a totally new conception of perception.

A perceptual system has organs, whereas a sense has receptors, therefore it can orient, explore, investigate, adjust, optimize, resonate, extract and come to equilibrium, whereas a sense cannot. The concept of a perceptual system in contrast with the idea of 'senses' implies that one is active instead of passive: the activities of looking, listening, touching, tasting or sniffing (Gibson, 1979). The perceptual activity consists *not* in the operation of the mind upon the bodily data of the senses, but in the intentional movement of the whole being in its environment (Ingold, 2000f). This idea will be very fruitful in our understanding of meditation. Meditation is not about passively sitting on a cushion. It can be understood as an active process of interaction with one's mind as environment. Meditation is not a static process, one in which the attention needs to be attuned to the mind as environment. Perception is a way of moving about in the environment, an active, orienting process of information pickup. Far from working on sensations already received, it involves the continual movement, adjustment and reorientation of the perceptual systems. Locomotion and behaviour are continually controlled by the activities of seeing, smelling, hearing and touching (Gibson, 1979). Also in meditation the mind needs to readjust in response to the mind as environment. We will work this out in detail in chapter 2 of part III.

The world becomes a meaningful place for people through being lived in, rather than through having been constructed along the lines of some formal design in the head. The perceiver has no need to reconstruct the world in the mind if it can be accessed directly in this way (Ingold, 2000f). Meanings are not attached by the mind to objects in the world, rather these objects take on their significance. Surfaces afford posture, fire affords warming and burning, ... (Gibson, 1979). Gibson introduced the notion of affordances. They are the potentialities for action inherent in an object or a scene. To perceive the environment is to perceive what it affords. Far from being inscribed upon physical reality, meaning is immanent in the *relational* contexts of people's practical *engagement* with their lived-in environment.

This is quite different from the supposed activity of getting information from the inputs of the optic nerves as conceived of in cognitive psychology. Perceiving in ecological psychology is an *act of attention*, not a triggered impression (Gibson, 1979). Perceiving in this view, is an *achievement* of the individual, not an appearance in the theatre of his consciousness (Gibson, 1979). This will turn out very important in our understanding of meditation (see part III, chapter 2). The person plays an active role in this notion of perception. The image of the human underlying this theory is totally different from the image of the human being within cognitive psychology. Cognitive science assumes a static perceiver. The act of picking up information is an activity that is ceaseless and unbroken (Gibson, 1979). What is important is the looking, listening, touching and sniffing that goes on when the perceptual systems are at work (Gibson, 1982). Depending on the kind of activity, we will be attuned to picking up particular kinds of information. Sensitisation or fine-tuning of the perceptual system to new kinds of information is about educating the senses. Novel perceptions arise from creative acts of discovery, rather than imagining and the information on which they are based is available to anyone attuned to pick it up. Capacities of perception are neither innate nor acquired, but undergo continuous formation within processes of ontogenetic development (Ingold, 2000q). Learning in this view, is not a transmission of information, but an education of the attention.

1.2.3 Perceptual (non-symbolical) knowledge

In the traditional approach, sensory inputs convey no knowledge. They can be made somehow to yield knowledge by processing them. If perception of the environment is based on a sequence of snapshots, it has to be a process of construction in which memories of past experiences are applied to the sensory input. This hypothetical process is perhaps the most widely accepted of all (Gibson, 1979). In this view, seeing is having temporary sensations one after another at the passing moment of present time, whereas knowing is having permanent concepts stored in memory. The underlying *a priori* assumption of this is that knowledge would have as its main characteristic that it would be *symbolical* (Gibson, 1979). This would imply that in order to perceive the world, one would already have ideas about it. According to Gibson (1979), this is a circular reasoning: knowledge of the world is explained by assuming that knowledge of the world already exists. If perception is based on invariant extraction from a flux, rather than on a series of glimpses, one does not need to have ideas about the environment, in order to be able to perceive it (Gibson, 1979). The information for the perception of an object is not its image, but is extracted directly from the environment. This is the ecological approach to perception. This conceptualisation of knowledge will prove very useful in the context

of meditation. In chapter 3 of part III, I will explain how meditation generates knowledge, which is perceptual and non-conceptual in nature. According to Gibson, perceptual knowledge can be known immediately, without intermediaries. The theory of information pickup makes a clear-cut separation between perception and fantasy, but it closes the supposed gap between perception and knowledge (Gibson, 1979). Seeing is an awareness of persisting structure instead of having temporary sensations, and knowing is an extension of perceiving. Knowledge in this sense doesn't have to be symbolical in nature.

The child becomes aware of the world by looking around, by listening, feeling, smelling, and tasting. Then the child begins to be *made* aware of the world as well. It is shown things, and told things, given models and pictures of things and then books, and finally rules and shortcuts for finding out more things. Toys, pictures and words in this sense, are aids to perceiving, provided by parents and teachers (Gibson, 1979). They transmit the tricks of the human trade to the next generation. The labours of the first perceivers are spared their descendants. The extracting and abstracting of the invariants that specify the environment are made vastly easier with these aids to comprehension. But they are not in themselves knowledge, as we are tempted to think. All they can do is facilitate knowing by the young (Gibson, 1979). The principal way in which we save our children the trouble of finding out everything for themselves is by describing things for them. Speech and language convey information of a certain sort. But we shouldn't forget *that this is information that has been put into words.* It is not the limitless information available to the perceptual systems themselves (Gibson, 1979)! No matter how much we put knowledge into words, all of it cannot be put into words, however skilled an explicator may be, one will always see more than one can say (Gibson, 1979). The use of verbal descriptions and the use of pictures are ways to facilitate knowing and to aid perceiving (Gibson, 1979).

In chapter 1 of part III we will apply this to Buddhism. Buddhism as a tradition contains aids by which individuals can learn to know things. The Buddhist theories, however, don't contain knowledge as such, it is through the interaction with the tools of the Buddhist tradition that the individual can discover a knowing for himself. For Gibson, learning is not about the *transmission of representations* from one generation to another, but about the *education of the attention* of the next generation. Words are instruments for perception, just like tools are instruments for action. The theory of Gibson will prove extra useful in the understanding of meditation, because it will allow us to conceptualise meditation as the education of the attention. Both need a skilled and sensitive engagement with the environment which becomes enriched by previous experiences (Ingold, 2000a). Also in meditation, knowledge about the mind is generated through the experience of the subject, interacting with the mind as environment. In Gibsonian psychology knowledge of the environment surely develops as perception develops, extends as the observers travel, gets finer as they learn, as they apprehend more events, gets fuller as they see more and so on (Gibson, 1979). In meditation, knowledge of the mind develops, in the process in which the perceptual abilities of the attention become more and more fine-tuned to the mind.

People from different cultural backgrounds perceive different because they have been trained differently to orient themselves to the environment and to attend to its features in different ways, and not because they have cognitive models which are

constructed on the basis of programs or schemata that are acquired as part of a tradition (Ingold, 2000q). In this view, cultures can be compared in terms of the relative weight of the senses in the perception of the world around us (Ingold, 2000j) rather than studying their symbolical worlds, which is often equalled with the term 'culture' or 'worldview' (cf. Smart). This opens a new terrain in the study of environmental perception (Ingold, 2004).

The redefinition of perception implies a redefinition of the so-called higher mental processes. In the mentalistic psychology, they stand above the lower mental processes, the sensory and reflex processes. These higher processes are supposed to be intellectual processes. Inasmuch as the intellect is contrasted to the senses, they occur in the brain. They are operations of the mind. No list of them was ever agreed upon, but remembering, thinking, conceiving, inferring, judging, expecting and knowing are the words used. Imagining, dreaming, rationalizing and wishful thinking are also recognized, but it is not clear whether they are higher processes in the intellectual sense. Gibson (1979) is convinced that none of them can ever be understood as an operation of the mind, neither will they ever be understood as reactions of the body. He believes that if they are considered in relation to ecological perceiving, they will begin to sort themselves out in a way that fits with the evidence. According to him, processes of thinking, perceiving, remembering and learning have to be studied within the ecological contexts of people's interrelations with their environments.

1.2.4 Appreciation and criticisms

The deep-seated notion of the retinal image as a still picture has been abandoned in this approach. The assumption that perceptions of the world are caused by stimuli from the world is also rejected. That perceptions of the world are caused when sensations triggered by stimuli are supplemented by memories is also totally abandoned by this view. There would be no influence of any cognitive filters in perception. This conclusion however is very radical. It is not because Gibson has showed us another possible way of looking at perception, that this would mean that the cognitive theory of mediated perception has to be totally abandoned. From my practical experience as a psychologist with people, I see evidence every day of the cognitive psychological theories, namely that people's perceptions of the situations they encounter in their lives, are constantly mixed with past memories and feelings, which colour the present moment for them. Like this people will perceive similar situations. So when Gibson is talking about cognitive psychology as "the old doctrine", he is funny in his arrogance towards a well-established and widely accepted paradigm, but I think he is jumping too fast into conclusions.

The cognitive-science community in response to Gibson's attack, has rolled out its big guns (Gardner, 1987). However I do think there are a lot of interesting ideas in Gibson's theory, apart from the fact that he throws a competing theory overboard. Gibson was an extremely clever and incisive researcher, a keen student of perception, who helped to explain many perceptual phenomena (Gardner, 1987). Gibson actually gives a rather optimistic view of the human being in the sense that we don't have to be determined by our past memories. We can perceive, without them playing a big part. At least, this was a way of viewing which had been thrown overboard, and Gibson has opened it up again. The fact that attention and perception are things that can be educated is still a rather new idea, however the

evolution of positive psychology has made a big shift from focusing on pathologies and the shortcomings in the human psyche to ways of cultivating positive aspects. The education of mental faculties which were before believed to be fixed and unchangeable such as attention, is currently gaining a lot of interest in mainstream psychology.

I think Gardner (1987), in his review of Gibson's psychology, is putting things too sharply as contradicting each other: a belief in the real world as it is, with all the information there, and the organism simply attuned to it, versus believing in the constructive powers of the mind, with the external world simply a trigger for activities and operations that are largely built in the organism. We will come back to this in our chapter 3 of part II, in which we try to find a middle way between cognitive and ecological psychology. I think it has been a nice achievement of Gibson to contradict the establishment of cognitive psychology and put the possibility of having direct, unmediated perception back on the agenda, stuffed with experimental evidence. His claims cannot be simply ignored in the scientific community. This opens new ways of understanding people, learning processes, memory, knowledge and tradition.

Gibson doesn't stand alone in this view. Many others before and after him have tried to get rid of the Cartesian ontology which takes as its starting point the self-contained subject confronting a domain of isolable objects. This total disengagement of the subject from the world leaves us a body as an executive arm of a disembodied mind that, sheltered from direct contact with the external world, is presumed to organize the data of experience and to be the ultimate source of all meaning and intention (Ingold, 2000q).

In the phenomenological view of Heidegger and Merleau-Ponty, the point of departure is, just like in ecological psychology, the person-in-the-world. The world and its characteristics are unfolding together with perception and the perceiver. Becoming a person happens together with the becoming of the world (Ingold, 2000e).

Heidegger (1927) suggests that the self and world merge in the activity of dwelling, so that one cannot say where one ends and the other begins. Also Ponty (1962) doesn't want to draw the strict line between perceiver and the perceived. For him, sight is not just a matter of seeing, but a human *experience* of light. We have to conceptualize seeing as a quality of ongoing engagement between the perceiver and his or her environment. Here Merlau-Ponty's concern with perception touches with Bourdieu's theory of practice. Just like Gibson's ecological psychology, Bourdieu (1977) set out to re-embed perception and cognition within the practical contexts of people's ongoing *engagement* with their environments. Both seek to escape from the sterile Cartesian dualisms of mind and nature, subject and object, intellection and sensation (Ingold, 2000f). The body, Merleau-Ponty (1962) wrote, is the vehicle of being in the world, therefore the perceiving agent as immersed in an environment, must also be an embodied presence (Ingold, 2000f). The distance between Ponty, Gibson and Bateson might not be so great as might first appear. According to Bateson (1973), the mind is not in the head, rather than 'out there' in the world, but immanent in the active perceptual engagement of organism and environment.

This rejection of the Cartesian dualism between mind versus body and environment is also found in current neuroscience, which is inspired by this phenomenological school. Varela and colleagues (1993) reject the extremes of realism's belief in a pre-given outer world or idealism's belief of a pre-given inner world because both of them take the problematical Cartesian representation as their central notion. They want to bypass this logical geography of inner versus outer, by studying cognition not as recovery, but as embodied action. Colours are not out there, independent of our perceptual and cognitive capacities (realism). Colours are not in here, independent of our surrounding biological and cultural world (idealism). Colours are *experiential* (Varela *et al.*, 1993). Colour categories belong to our shared biological and cultural world. Also here, we find the idea of a world and a perceiver, specifying each other.

Finally we also found this trend of embodied action in the enactive approach in cognitive psychology. Here cognition is no longer seen as symbolical knowledge in the head or as problem solving on the basis of these representations, but as embodied action. Histories are lived much like paths that exist only as they are laid down in walking. The term 'enactive' indicates that cognition is not the representation of a pre-given world by a pre-given mind, but is rather the enactment of a world and a mind on the basis of the variety of actions that a being in the world performs (Gardner, 1987).

2 Underlying theories of Western psychology in concepts of the social sciences

We gave an overview of cognitive psychology as well as the way this theory was influenced by some unquestioned Western cultural-historical presumptions. We have attempted to show how these presumptions of separating the human world from the environment cause important shortcomings in a theory about the human being. We have showed how other trends in psychology, philosophy, neuroscience and even cognitive psychology are trying to break away from these century-old unquestioned and taken for granted hypotheses. The idea that the human being is representing the world 'out there' in a symbolical-cognitive way in the 'head' has far-stretching consequences on concepts like 'culture', 'tradition', 'learning' and 'knowledge'. In this chapter we want to show how this dominating idea of symbolical-cognitive representations pervades the social sciences, focusing on the religion studies.

In part I we have elaboratively showed how Wilfred Cantwell Smith's proposition of new concepts (however in a religious language) was misunderstood by Wiebe, Smart and other authors. We have diagnosed the underlying problem of these misunderstandings to be at the one hand Smith's religious language, and on the other hand the influences of the cognitive paradigm in Smart and Wiebe's underlying theories of what the human being is, on what learning consequently is and on what 'tradition' is.

While drawing Smith's concepts in this limiting paradigm, the religion studies had come into an impasse on how to study religious experiences. Should we study them as insiders of a religion and live the experiences ourselves in a subjective way, but fully apprehending what it is about? Or should we study religion as outsiders, in the form of the expressions, the cognitive representations, what the religious subject tells about them? According to Wiebe, Smart and other authors the latter seems to be the only way in which we can study religions in an objective and scientific way. So we falsely seem to have to make a choice between the subjective, non-reductive and non-scientific approach, or the objective, scientific and consequently reductive approach. Smith however tried to defend himself by showing how these authors misapprehend him and how they are stuck in their own paradigmatic way of thinking. But his religious language was always interpreted as if he would want to bring 'God' into the study of religion. As a consequence, he got classified in the theologian camp who claimed that one has to be religious in order to study the religious experiences.

In this chapter we hope to show how Wiebe, Smart and other authors' interpretations of Smith's concepts were influenced by the cognitive paradigm outlined above. Next to that we hope to introduce another way of conceptualizing, from beyond the limits of the cognitive paradigm. We will inspire our concepts with which we want to take a second look at Buddhism on ecological psychology. In this way we want to come up with concepts which will be able to capture phenomena in other cultures, especially Buddhism, without being drawn into a typically Western, secularized frame with hidden Christian roots (i.e. cognitive psychology). We use ecological psychology in order to bring living Buddhism into the attention, rather than only Buddhist texts, Buddhist theories or the Buddhist 'doctrines' (sic!).

In the cognitive paradigmatic way of thinking, 'tradition' and 'knowledge' are conceptualised as the transmission of representations coded in symbolical cognitive schemata. This view separates out the acquisition of knowledge from environmentally situated experience. The connection between world and person is broken in a Cartesian dualism. The underlying idea of perception is that after receiving a bunch of chaotic data through the senses, the environment is cognitively reconstructed and the raw sense data are organized in cognitive schemata. This view also reduces learning processes to the simple inscription of convictions in the head, irrelevant of the contexts in which they are learned. The relational aspect lost in a cognitive interpretation of Smith's theory is rehabilitated with an ecological psychology as underlying theory of perception, learning and knowledge. Smith emphasised the relation between the experience of the individual and the 'tradition'. 'Tradition' in his view is not merely about the expression of experiences, 'tradition' is an instrument the individual uses in a process of discovery. The symbols in a tradition thus receive meaning in the way they influence the experience of an individual. 'Faith' is about discovering something for oneself that is not present in the words or symbols of the tradition. 'Faith' is about something more than what can be put into words (i.e. a 'belief'). 'Tradition' is handing down the tools for this discovery. Therefore 'tradition' cannot be studied in itself, but has to be studied in relation to and in the activity of the people. 'Transcendence' as a concept refers to the fact that we should not keep on staring at tradition as the finger pointing to the moon, but have eye for the fact that a 'tradition' is pointing to 'something else' than this finger, whatever that 'something else' may be.

Lieve Orye uncovered these aspects in Smith's theory and saw Ingold's work as a possible translation of the religious language of Smith. We will translate Smith's religious language using Ingold's ecological approach to 'traditions' as 'learning traditions'. In this view, 'tradition' cannot be seen as static and separate from the experience of the individual in the lived-in-world as Smart and Wiebe see it. Experience is about a fine-tuning of the bodily movements and perception to the environment. Perception is educated by the environment and 'tradition' is part of this 'learning environment'. Learning emerges in a context of sensory involvement rather than in a vacuum. This will allow us to conceptualise other forms of learning processes (such as meditation) which are overlooked in a theory which leaves the environment as an influencing variable out of sight. Learning is not only about filling up mental boxes (cognitive paradigm) but is about acquiring skills, arising within 'processes of development' in a 'field of relationships', in which a person unfolds. This view will enable us to cover those aspects of Buddhism which weren't covered in Wiebe's methodology. Now those non-conceptual processes and states of mind Nagarjuna and Zen talk about, can be placed in a theoretical framework.

'Tradition' here is no longer reduced to cognitive schemata or 'beliefs' in the head, but is also about the 'education of the attention' (cf. Gibson). 'Tradition' is setting up the conditions in which growth can occur. In this 'learning environment' ('tradition' as 'learning tradition') a person can discover this knowledge by himself (cf. 'faith' as personal truth). 'Traditional knowledge', in this view, is born through the immediate experience of sensory participation with the dwelt-in world. The attention undergoes development within an environmental context. People perceive different in different cultures because they have been trained differently to orient themselves in the environment and attend to its features in different ways. Through this process of

growth, the *whole* person is affected, it is not only about the inscription of representations in the head. The person is more than a *homo symbolicus*.

The continuous generation and regeneration of a 'tradition' in the contexts of people's engagement with their environments, will prove very useful in the study of Buddhism as a living tradition (part III). We will give examples of Ingold and Latour on enskillment (hunting, smelling perfume, basket-, knot-, and bilum-making) because they will prove very useful in the study of meditation. In these learning processes words are only tools to direct the attention of the subject. Skills are about a flexibility and sensitiveness to a changing environment. Ecological psychology gives us a very different outlook on what 'tradition' and learning processes are about. With our new concepts, we hope to do justice to the study of Buddhism (see part III), without reducing it to the symbolical representations in the heads of the practitioners, since that seems to be exactly something which one aims at overcoming in Buddhism (as we saw in part I).

2.1 Limiting influences of the cognitive paradigm in the interpretation of Smith's concepts

Wiebe and Smart understood the concept of Smith's 'cumulative tradition' as: a range of convictions, beliefs, doctrines, rituals and externalia which are being passed on from generation to generation. 'Tradition' is also about the expressions of the people's subjective experiences (i.e. 'faith'). They see the concepts 'cumulative tradition' and 'faith' as two separated things, standing by themselves. We can recognise the Cartesian bifurcation in this interpretation. This distorted view of Smith's proposal for new concepts made them conclude that Smith wanted to reduce the religion studies to the study of those subjective experiences and not the study of the 'cumulative tradition'. While Smith wanted to study the interaction between 'tradition' and 'faith', and the learning processes this implies, according to Wiebe we cannot study the subjective experiences (as opposed to or separated from 'tradition'). Wiebe wants to study the expressions of the subjective experiences in an objective way. The study of religion can therefore entail the study of the symbolical or cognitive convictions, or in Smart's words, it can be the study of the *homo symbolicus*. Smith's 'transcendent' therefore, could be part of the religion studies, after it has been translated as someone's belief: "that the transcendent exists". So experience is here translated into the cognitive contents people have in their heads, and in this way it can be studied in a scientific way.

Wiebe does recognize that the Zen arguments and Nagarjuna's theory-free approach (as we discussed in chapter 2.3, part I) point to something else, something more than these symbolical-cognitive aspects of religion, but he sees no possible scientific way to studying those. But since, for Wiebe, also these non-cognitive, non-symbolical, non-conceptual experiences can be considered as part of a worldview, we can study their objective expressions in the doctrines and people's convictions. 'Tradition' in Wiebe and Smart's opinion is about having conceptual, symbolical, cognitive ideas as the contents of the heads of the religious subjects. Wiebe and Smart had misunderstood Smith's theory because they interpreted Smith's notion 'tradition' within their own cognitive paradigm as the mental representations people carry in their heads. This gave a distorted view of 'tradition'.

We will try to localize the presence of the underlying cognitive paradigm in their interpretation and try to filter it out and replace it with another view on the human being and perception, namely ecological psychology. We are guided in this work by Ingold who made extensive analyses of the influences of the cognitive paradigm permeating the social sciences, especially anthropology. He pointed out how the underlying cognitive paradigm in the concept 'tradition' gave a totally different interpretation to the reality studied. Ingold also gives us a non-religious language, which captures the nuances in Smith's theory which had gone lost in Wiebe and Smart's interpretation. He also hands us the tools and the words to translate Smiths religious language, but without throwing the child out with the bathwater.

2.1.1 A cognitive interpretation of the concept 'tradition'

How does each generation contribute to the knowledge of the next generation? Anthropology attempts to understand how this accumulation occurs (Ingold, 2000d). In the discourse of modernity, 'traditional knowledge' is linked to a cognitive model. The significance of this model and its impact extends far beyond the confines of academic anthropology (Ingold & Kurtila, 2000). We can find it in Wiebe and Smart's notion of 'tradition'. In their opinion, 'tradition' consists of an elaborate system of intergenerationally transmitted *representations* in the head. This view rests on the cognitive model that separates out the acquisition of traditional knowledge from environmentally situated experience (as we saw in the criticisms of cognitive psychology, chapter 1.1.4 of part II).

The underlying idea here is that people's experience is organized in terms of shared *concepts* that are transmitted through their education. What is transmitted are the rules and representations, coded in speech or other *symbolic* media (Ingold *et al.*, 2000). This assumption, isolates the intergenerational transmission of knowledge from environmentally situated experience (Ingold *et al.*, 2000). 'Tradition' here, consists of items of knowledge that are passed down as objects of memory, prior to their retrieval and application in contexts of practice and independently of its application or expression in real-life contexts of activity (Ingold *et al.*, 2000). Thus the traditional knowledge does not relate to the current circumstances of the individual in his life and environment, but to an earlier, pre-colonial era, converted into an object of memory. In this view of 'tradition' we can recognize Cartesian dualism in which the connection between the person and the world is broken. 'Tradition', 'culture' and 'knowledge' are reduced to the *cognitive* aspect: symbolical information, representations, and not the way of experiencing of the person himself. The symbols are objectified and looked at standing by themselves. The signification of it is present in the 'tradition' itself, instead of depending on its context. In this view of the symbol, 'tradition' is a static phenomenon. The people's present-day experiences play no further part in it.

We see a clear-cut separation between the person, the symbolical-cognitive tradition and the world. The Cartesian view of action as the bodily execution of acquired programs, reduces the body to a passive channel (Ingold, 2000e). The active part is reserved for the mind as the knowing subject. The operations of the mind upon the deliverance of the senses order reality *within the confines of the pre-existing schemata or models* that are acquired as part of the 'tradition' (Ingold, 2000q). The Cartesian ontology that is basic to the entire project of the underlying cognitive

paradigm divorces the activity of the mind from that of the body in the world (Ingold, 2000f).

The person, the body, the lived-in-world and the interaction between them, including the people's religious practices, are underemphasised in Wiebe and Smart's understanding of 'tradition'. The body continues to be regarded as nothing more than an input device whose role is to receive information to be processed by the mind (which is containing the symbolical models of the tradition), rather than playing any part in cognition itself. The experience, reduced as input coming from the senses, is then ordered in the conceptual schemata in one's head, during the cognitive process of perception. The reason why individuals react different in similar situations then is because they put the same material in a different symbolical system or cognitive schemata in their head (Ingold, 2000e). What people see, will therefore be relative to their particular framework (tradition, worldview, culture, ... as symbolical filters) for viewing the world (Ingold, 2000q). This is the underlying cognitive paradigm in the way 'tradition' is apprehended by Smart and Wiebe. In this way 'tradition' can be seen as a network of shared symbolical meanings, which direct the experience of the human being (Ingold, 2000e). This view of perception is implicitly present in Smart and Wiebe's conception of tradition. This has become an unquestioned, taken for granted hypothesis, which is not being explicated but definitely implicitly present in their theory.

This view of perception and its connection with culture and tradition has been worked out in detail within anthropology. Mary Douglas (1966) was one of the many anthropologists who believed that perception of the world is constructed to a certain order, through the imposition of culturally transmitted form upon the flux of experience. Also according to Leach (1964), the categories of language provide the discriminating grid, which are laid over the continuous substrate of raw experience. Both Douglas and Leach are inspired by Durkheim's theory which divides the human being into two mutually exclusive parts. On the one hand we have the physical world, bombarded by stimuli which are registered in consciousness as a chaos of shifting impressions. And on the other hand, standing aside from this engagement and untouched by it, we have the conceptual categories that sort out the sensory input, discarding or suppressing some elements of it (Ingold, 2000f). In this view we can clearly recognize the influence of the cognitive paradigm in which perception is a two-stage phenomenon with first the receipt of chaotically and meaningless sense data, and second: the organisation of these data into *collectively* held and enduring representations (Ingold, 2000f). According to Geertz, this set of control mechanisms, plans, recipes, rules, symbols, instructions, ... are *social* rather than psychological. There were some controversies about this with for example Franz Boas, who saw culture as a system of habits, beliefs, and dispositions, as essentially *psychological*, rather than social.

Despite their different intellectual roots in American and British social anthropology however, both took culture to comprise a framework of *symbolic* meanings relatively *unaffected* to the passage of time and people's experiences throughout the different generations embedded in their environments. Because of the influence of the cognitive paradigm, 'culture' and 'tradition' are conceptualized as a *static* body of transmissible knowledge, as distinct from manifest behaviour patterns in a surrounding world. This is also the problem in Smart and Wiebe's conception of 'tradition'. The human being is a passive receipt, a container which is receiving this

symbolical material as a gift in his head. His experience and his participation as a person with a history in perception, activity and interaction with his social and physical environment are not part of these programs. The person as a whole, remains unaffected by having a symbol in his head. They only need to implement these in concrete situations in daily life.

2.1.2 Underlying theory of learning processes

If we see 'tradition' as a bunch of symbolical representations in our heads, this has implications for our view on learning processes as well. How are these representations about our tradition transmitted over the generations? How does a representation in your brain, find its way into mine, and from my brain into the brains of yet other people (Ingold, 2000d)? Kroeber (1917) answers this with his famous expression of the *tabula rasa* that man is a tablet that is written upon (Ingold, 2000d). According to Ingold, this implies that cultural scientists need to be no more concerned with the psychology of human nature, than say, journalists with the technology of paper-making. This made it possible for cognitive anthropologists to seek for the acquired schemata or programmes in people's heads (Ingold, 2000f). The *practices* in which these schemata are present, are no longer considered in this approach. It also makes it possible to study a religion as the convictions people hold in their head, apart from the practical contexts of their lives. The symbols, convictions etc. are seen as the informational *content* of transmitted culture or tradition. How this is passed on, is considered irrelevant. This corresponds to the architect's perspective. First we have the plan, than it is being executed and only later, the people are imported to live in it (Ingold, 2000b). Traditional knowledge is here conceived of as already made, we just have to acquire it (Ingold, 2005b). Later we can implement this knowledge in our life (Ingold, 2005b). We will compare this view on learning extensively below, where the alternative view shows us another possible view on learning and acquiring a 'tradition' as a relational process, a view which comes closer to Smith's conception of 'tradition'.

2.2 A relational interpretation of 'tradition'

2.2.1 Smith's view on traditions as 'learning traditions'

We will put the words in italics, which are about those nuances, which are lost in Wiebe and Smart's cognitive interpretation of Smith's 'tradition'. Smith wanted the study of religions to be the study of the *relation* between the individual's experience and the 'cumulative tradition', the way these are constantly interrelated and influence each other. In this way he wanted to avoid that 'faith' would be reduced to 'the convictions' people have in their head, or a 'belief' in the *idea* 'that God exists'. He rather saw the continuous interrelation between 'faith' and 'tradition' as a *process*, not a static entity. He didn't see 'tradition' as an expression of the subjective experiences, but as an *instrument* the individual uses in this process. In this view, 'tradition' is seen as a means to get to something else, something transcending the tradition. A symbol gets its meaning in what it brings about in the individual's life. The tradition is like a finger pointing to a moon and we shouldn't reduce the religion studies to the study of the finger.

'Faith' in Smith's understanding, is exactly about recognizing something for oneself, and not about having a belief in the head, 'that a God must exist', it is *about*

something more, than what you can put into words. Smith tried to use the concept 'transcendence' to show that there was something else about 'tradition' than the cognitive ideas in someone's head. There is something more than the doctrines, beliefs, symbols of a tradition. The person is attracted to the tradition, not because of the tradition itself, but because of something beyond the words of the tradition. The tradition has the potentiality to touch something within the person. The person is not attracted by the symbols of the tradition, but to that what the symbols refer to and what those symbols can do in their lives. The tradition has *the potentiality to change the individual*. He can transcend himself through the means of the tradition. According to Smith, men's faith has transcended the specific concrete data by which it was nurtured and through which it was expressed. The tradition is a collection of means through which the person *can discover for himself something transcending the tradition*. Therefore we shouldn't study the traditions standing on themselves, but what they do *in the personal lives* of the people. According to Smith the tradition is localised in the human *activity*, people are part of the tradition and cannot be seen as separate from it. Smith takes the metaphor of the dance to show that tradition is present in people's life. One cannot study the dance without the dancer. The *person himself is affected* by this process, it is not just about some symbols he is having in his head. The *active role of the human being* is an important characteristic of what Smith calls 'human learning', it is not just about filling the head with symbols. The person opens his actual self for a potential self, but one cannot imagine or have an *idea* about where one will end up after the process of interaction with the tradition. That is why Smith uses the term 'transcendence': we will transcend ourselves, but we don't know in advance what that exactly means or where it will take us. One realizes where one is going to, *during* the learning process itself. The study of religion, in Smith's conception, is about the study of the activities and learning processes of the people and how this changes them.

2.2.2 Ingold's ecological interpretation of 'tradition'

Some case studies

In his study of other cultures, Ingold shows us how 'traditional knowledge' cannot be seen as static and separate from the experience of the individual in his lived-in world as Smart and Wiebe see it. He contrasts the modern conception of 'traditional knowledge' to a local conception of 'traditional knowledge'.

A person in a hunter-gatherer-society for example knows the country as the back of his hand. It is not something he has learned by only listening to the stories of his ancestors. This 'traditional knowledge' is inseparable from actual practices of inhabiting the land. It is in the relationships that are forged with the land, along with its animal and plant life, that their knowledge is generated and regenerated (Ingold *et al.*, 2000). It means that through having grown up there, he has learnt to know it (Ingold *et al.*, 2000). No-one is ever knowledgeable enough to be able to move in the forest with total confidence. Moving in the environment means tuning one's own movement in response to the movement in one's surroundings (Ingold *et al.*, 2000). The multi-sensory awareness of the environment is the key to spatial orientation and coordination. 'Tradition' is thus not passed on only through stories or mental representations it can be seen as a relational *process* and as a *skill* (Ingold *et al.*, 2000). 'Traditional knowledge' is not about something in the head, but includes the whole body and the attunement of the senses on the environment.

In the Sami culture, some of the old people were credited with exceptional ability in reading the signs in the environment of impending weather changes (Ingold *et al.*, 2000). Such knowledge of the weather is not something that is handed down as a set of customary prescriptions or formulae in the head. For Sami people, the perception of weather is *multi-sensory* (Ingold *et al.*, 2000). It is about what it feels like to be warm or cold, drenched in rain, or caught in a storm. It is just as much auditory, tactile and olfactory as it is visual. One can smell when it is becoming warmer on cold winter days (Ingold *et al.*, 2000). These sensory modalities cooperate so closely that it is quite impossible to separate out their respective contributions to the totality of weather-related experience. Weather is *experienced*. 'Tradition' here is not just about acquiring some *cognitive schemata in the head* but about the *education of the senses* which cannot happen separately of the lived-in-world. This conception of tradition will prove very important in Buddhism, where it seems to be the goal to exactly getting beyond this, by using special kinds of techniques. In part III we will discuss how these techniques are totally different learning processes, as defined in cognitive psychology. Rather it is about a kind of learning process in which symbolical, cognitive contents don't play a crucial role. This is what Wiebe thought to be impossible to be studied in a scientific way: Nagarjuna's non-conceptuality. However with Gibson's 'education of the attention' we can start with a perfectly acceptable theoretical framework, which makes it possible to understand meditation as a kind of learning process, without having to mystify it, without having to be an insider to start knowing what it is actually about, and without having to reduce it within the confines of the cognitive paradigm.

The perception of the weather with the Sami people is embedded in personal life-histories of inhabiting particular places, it is dependent on particular tasks and modes of travel. Its multi-sensory quality flies in the face of the *separation* of the *acquisition of knowledge* from *its application* (Ingold *et al.*, 2000). Sami people do not so much apply their knowledge in practice, after having learned it, rather they know by *way* of their practice. Their traditional weather-related knowledge, consisting in sensitivity to critical signs in the environment is not really passed down in the form of representations. It rather undergoes continual generation and regeneration within the contexts of people's practical engagement with the significant components of the environment (Ingold *et al.*, 2000). This will prove very important in the study of Buddhism as a living tradition (part III). The continuous regeneration of Buddhism in the context of individual's life is crucial in the passing on of the tradition over the generations. If it doesn't pass through the personal experience of some well-respected teachers, other Buddhists would lose their connection with the tradition. It is because of those experienced practitioners, who can help Buddhists regenerate the practices and get the feel of things, discover things by themselves that the tradition proves valuable in the lives of so many Buddhists. This could be a non-Christian translation of Smith's concept 'faith'.

This translation undermines the underlying thesis in Smart and Wiebe's interpretation that cultural learning is like filling a universal, genetically specified container with culturally specific contents. Even if Ingold applies the notion 'tradition' within the field of anthropology, we certainly recognize some elements of Smith's theory in it. Both are emphasizing the relational aspect between human and tradition, which is about a process, integrated in the activities and practices of the human being. Where Smith emphasises the relation between 'cumulative tradition' and 'faith', we can translate this as experience *and* tradition embedded in the person himself and his

entire life. It is thus not just about cognitive ideas, or beliefs in the head only, but something that transcends these. The underlying psychology of Ingold's conception of tradition is the ecological psychology, rather than the cognitive approach.

Ingold doesn't want to restrict his criticism to the cognitive underlying model to traditions in other cultures. He criticizes the very idea that human beings would be pre-equipped with cognitive devices and mechanisms which allow knowledge to be reassembled inside the individual. Strands of DNA would have to miraculously to transform themselves into data processing mechanisms. The language acquisition device would for example be one of those innate universal cognitive mechanisms, which allows humans to learn language (Ingold, 2000q). According to Ingold (2000d), this traditional model of enculturation as a simple process of inscription, rests upon an impossible psychology. Some sort of cognitive processing device must already be installed in human brains, *before* any transmission can take place at all. Here we have the distinction between innate devices and acquired representations. According to Ingold (2000d) however, language is not tossed like a ball from one generation to another. A child's ability to speak is not constructed in a vacuum, but rather emerges in a context of sensory involvement (Ingold, 2000d). It exists in a current of speech. Long before birth, the child is immersed in a world of sound. The conscious of the child develops within this current. It is surrounded by already competent speakers, who provide support in interpretations of its own vocal gestures (Ingold, 2000q). Language is in this way continually being generated and regenerated in the developmental contexts of children's involvement in worlds of speech (Ingold, 2000q). It is not about *filling up mental boxes*, but about *acquiring a skill* (Ingold, 2000d). Ingold's point here is that these capacities are neither internally pre-specified nor externally imposed, but arise within *processes of development* in a *field of relationships* in which a *person's life unfolds* (Ingold, 2000d). According to Ingold (2000d), we should focus on the temporal unfoldings of these systems.

Person and 'tradition' as part of a 'field of relationships'

In the passage of human generations, each one contributes to the knowledgeability of the next not by handing down a corpus of disembodied, context-free cognitive information as mental contents, but by *setting up, through their activities, the environmental contexts* within which *successors develop their own embodied skills of perception and action.* The contribution that other people make to one's own knowledge is not one of cognitive contents or representations, but rather one of *setting up the conditions in which growth can occur*. The knowledge it generates is knowledge the novice *discovers for himself.* We can compare this conception of tradition with what Smith was trying to say with his concept 'faith'. He wanted to make clear that religion is not about passing a context-free system of ideas as Wiebe and Smart conceive of 'tradition'. Smith wanted to emphasize the role a religion could play in the life of the individual. Through religion, the person discovers something for himself, during his way of life. 'Faith' is about seeing something for himself, rather than believing in something. 'Tradition' then becomes an instrument in human activity. 'Tradition' creates a 'learning environment' by passing on a collection of means, through which the person can have experiences through which he discover for himself, something transcending the tradition, something about the tradition which cannot merely be passed on through words.

According to Smith, 'tradition' is a window through which we can perceive something transcending us. Also according to Ingold, tradition is not about cognitive contents and schemata, but about the *creation of an environment* within which a person can discover things for himself. Passing down a tradition is about a *process* of *guided rediscovery* (Ingold, 2000q). 'Tradition' is part of the learning-environment of the person. Regarded as a process, tradition can be continuous without taking any fixed form (Ingold *et al.*, 2000). Whereas 'tradition' as a system of beliefs, rituals, symbols etc. is a static content, 'tradition' as a process related to the individual, is changing along with the experiences of its members. Again we can find some parallels in Smith's conception of 'cumulative tradition' and 'faith'. Smith doesn't see these two as separated, or the 'tradition' as the expression of the experiences of the individual as Smart and Wiebe imply. He sees a continuous interaction between the tradition and the experience of the individual. The truth of the tradition is localised in the person, the tradition becomes part of the person and the person is part of the tradition. According to Smith it is a process of continuous interaction which is changing the individual.

Also Ingold conceives of the person, not as an entity apart from the world, but as a locus of growth and development within a field of relationships. *Person and 'tradition' are part of this field of relationships* and cannot be seen separated from each other (cf. 'cumulative tradition' inherently related to 'faith'). The person, as well as his history, his body, his senses and the social and physical world he lives in, are part of this environment. The person is not a passive receiver, but plays an *active role* in acquiring the knowledge. Also in Smith's conception of 'tradition', the person is not just a passive receiver. Smith sees the relation between 'cumulative tradition' and 'faith' as an activity, in which the human being participates and plays an active role. He called this process 'human learning', to stress that the person is not just a passive receiver. In Ingold's conception of 'tradition' it is not about the transmission of symbolical contents, representations, programs, schemata or mental models, but rather through a mixture of imitation and improvisation in the settings of *practice* that the 'tradition' is passed on from one person to another. While imitation is a simple mechanical reproduction, improvisation is about the creation of *unpredictable* novelty. Also in Smith's idea of 'human learning', we find this idea of unpredictable novelty. The person opens his actual self for a potential self in 'human learning'. And it is only *during* the learning process that he finds out where this interaction with the tradition is taking him. Beforehand he cannot imagine or have an idea about where he will end up. Also the concept 'transcendence' of Smith refers to this unpredictability. One will change or transcend himself during the process, but this transcendence could mean different things. The tradition is only pointing to something beyond the tradition. The person finally has to find out for himself what this really means, and not by just reading about it. The aspects of the active role of the person, the discovery of something for oneself in which the Buddhist practices are only aids (present in Smith's and Ingold's theories) will prove very important in our study of Buddhism.

In Ingold's conception of 'tradition', people develop their own ways of doing things, but in environmental contexts structured by the presence and activities of predecessors (Ingold *et al.*, 2000). Traditional knowledge in this relational view, is born through the immediate *experience* of *sensory participation* with the dwelt-in world. In part III we will explain in a detailed way how we can conceptualize meditation as a sensory participation with the mind as environment. And the

knowledge derived from this, can accordingly be conceptualized as a non-symbolical, non-theoretical knowledge, born through the immediate experience of this interaction of the mind with the mind. 'Tradition' in this conceptualisation is not seen as merely an expression or a frame through which experience is filtered and interpreted, or as that, which according to Wiebe and Smart can be studied scientifically (in contrast with subjective experience, which can't be studied like that according to them). Traditional knowledge is seen as *part* of this experience, not as the translation of the experience in language. Also according to Smith, 'tradition', cannot be seen separately from the experience of the religious subjects. Also Pierre Bourdieu (1977) argued in his theory of practice, how cultural knowledge is itself generated within the contexts of experience, in the course of peoples involvement with others in the practical business of life, rather than being imported by the individual into contexts of experience.

Through such *involvement*, people acquire the specific dispositions and sensibilities that lead them to orient themselves in relation to their environment (Ingold, 2000f). It is this relational aspect of involvement which Wiebe and Smart missed in Smiths theory. Smith wanted to connect 'tradition' with the experience of the individual and saw them as influencing each other in what we could say in Ingold's words: a field of relationships. Smart and Wiebe opposed 'tradition' and experience within the objective-subjective opposition and came up with the solution of studying the objective as the expression of the subjective. This is a totally different view which excludes the relational aspect between 'tradition' and person. The '*habitus'* in Bourdieu's theory could be described as a pattern of thought-feeling, not in an interior subjective space of images and representations, but in the space of people's actual *engagement* in the settings of practical activity. Whereas 'tradition' in the cognitive model of Wiebe and Smart is supposed to exist independently of and prior to their application in particular situations of use and in the interpretation of experience, the 'habitus' exists only as it is instantiated *in the activity itself*. The 'habitus' is not expressed in practice, it rather subsists in it. For example playing the cello is about reproducing a song, while a CD is a replication. In playing the cello, is included one's own *personal experience* and sensory involvement. The song is acted out by the *process* of the player. The person is where the song is located (Ingold, 2005b). In the same way, we can see the tradition as being present in the experience of the human being's life, people carry it around, as they go, they know (Ingold, 2005b). Again Smith's example of tradition as a dance can be put next to this. Moving in the world is part of the process of knowing. Knowledge is not passed on to people, but people grow into knowledge through dwelling in the world. It is a field of relationships in which person, world, and tradition merge together. One cannot say where one begins and the other ends. There are no borders between the tradition, the world and the person. They are interrelated. We cannot tell of a moebiusband which part is the inside and which is the outside.

In cognitive science knowledge exists in the form of mental content, tossed from one head to another like a ball. Memory is like an inner closet in the mind in which one stocks information to be retrieved for the use in everyday life (Ingold, 2000a). In contrast with the cognitive view: while playing the cello one doesn't retrieve the procedural program from one's memory, rather it is *in* playing the Bach suite that it is remembered, the processes of remembering and playing are the same (Ingold, 2000q). People don't act out a script received from their predecessors, but literally negotiate a path through the world (Ingold *et al.*, 2000). Memory is not just a

framework which stocks collective representations as a content, rather it is a process.

Underlying theory of learning

According to Ingold (2000d) it is through a process of *enskillment*, not enculturation that every generation grows into and beyond the wisdom of its predecessors. This is the difference between taking ecological or cognitive psychology as one's starting point. Skilled practice is not just the application of a mental model passed down from the ancestors, as in the cognitive theory of procedural knowledge. Whatever practitioners do to things is grounded in an active, perceptual involvement. They watch and feel through their way of life, with their body and their senses. In the growth of human knowledge, the contribution that each generation makes to the next is not an accumulated stock of representations but an *education of the attention.* The structure of attention in the cognitive model is a pre-given disposition which itself doesn't undergo development within an environmental context. People perceive different because they have been trained differently to orient themselves to the environment and to attend to its features in different ways. The new generation needs to develop a perceptive sensitiveness, not acquire a couple of conceptual representations. We will work this education of the attention out in detail in the context of meditation. We learn to perceive by a fine-tuning or sensitization of the entire perceptual system (Gibson, 1979). Through this process, the human being emerges as a centre of awareness, whose processes resonate with those of the environment (Ingold, 2000q). The difference between Ingold's conception of learning through tradition and that of Smith is that Ingold emphasises the role of the body and the perceptual systems and the education of the attention in this process of learning, whereas Smith will also pay attention to the education of the heart in the old signification of 'to belove'. We will see that both approaches are relevant in the study of Buddhism.

Underlying image of the human being

As we argued above, a human being is not a composite entity made up of separable mutually complementary parts, such as a body, mind, 'tradition' and culture. The human being in this view is not conceived as standing aside of the world, while carrying around a set of cognitive rules and representations. We don't see the mind as a container, to be filled up with traditional information in the form of mental representations. A person stands in the centre of his field of perception and action. Neither the body nor the mind is more important, both embodiment and enmindement are important (Ingold, 2000e). Mind is immanent in the active, perceptual engagement of organism-person and environment (Ingold, 2000d). Like the moebiusband one doesn't know where the person starts and the environment stops: inside and outside are interwoven lines (Ingold, 2005). It is in the ongoing engagement between perceiver and environment that one is constantly changing and undergoing processes of development. A person grows and is grown (Ingold, 2000a). Also Smith emphasizes this relational aspect between person and tradition in a process. Persons grow in an environment furnished by the presence and activities of others and it is in this way that they become part of a tradition or the tradition becomes part of their way of life. Persons are loci of growth and their reality is relational (Ingold, 2000a). The person is a locus of creative growth within a continually unfolding field of relationships. Also according to Smith we should situate

the tradition in relation to the person. That is why there is no way of studying the human being, apart from the way in which human beings become (Ingold, 2000q). Therefore, according to Ingold (2000q), psychology should be no different from anthropology. And the other way around, as Smith argued, there is no way of studying a tradition apart from human beings. So the study of religions should be about the study of human beings and their relationship with the 'tradition' and the learning processes they undergo in this active engagement.

Conclusion

In the ecological view, 'traditional knowledge' is not about *static* mental symbolical-cognitive *contents* filling up the pre-given structures in one's head, but about a type of *process* within the *person* (including his body and senses) in the *lived-in world*. These are fundamental differences underlying Smith versus Wiebe and Smart's conception of 'tradition'. The transmission of the 'tradition' is seen as an integral part of the context of the practices and *experiences* of the individuals (again, including his body and his senses) in their environments and not as the expressions of their experiences. Thinking in this view is inseparable from doing, thought is embodied and enacted. In this way the body and the senses undergo changes along with the mind through the experience of the individual. Through this, the person is affected and changed as a whole and is not just holding a new set of beliefs, ideas or symbolical contents in his head. The human being is more than a *homo symbolicus.*

2.3 Opening up a new understanding of learning processes

While in the cognitive paradigm, learning entails the acquisition of cultural schemata for building representations of the world in the mind from data delivered by the senses, so that people would perceive the world in the mind's eye through the lens of received tradition, was very limiting for our study of the Buddhist tradition, where meditation practice seems exactly not to be about perceiving the world through the filter of cognitive, symbolical, mental models in our heads. Placing the person back *in* his environment in contrast with seeing the person as separate from the world and representing the world 'out there' *in* his mind, and reconnecting the person and his mind with his body and his senses, opens up new ways of understanding learning processes or the development of the human being. This alternative view could give us a solution to how to study those non-cognitive, non-symbolical, non-conceptual aspects in the Buddhist tradition, we discussed in part I. Those aspects couldn't find a place in Smart and Wiebe's conceptualisation of religion. It might seem rather contradicting to go looking for answers in ecological psychology which pays a lot of attention to the body and the senses as perceptual systems, while meditation *seems* to be a practice which is exactly not about the body but about the mind. Meditation only seems to be about something happening in the head, because we are so influenced by the cognitive view and its locating the mind as something in the head and moreover contain symbolical, cognitive contents. It is true, that one would at first not look in the direction of ecological psychology for an answer to the question about how we can study Buddhist tradition and the Buddhist practices. But we will see that this approach gives us a much better, culturally unbiased starting point and conceptual framework to study Buddhist tradition and Buddhist meditation, whereas the cognitive framework was only leading us into impasses.

Ingold gives us plenty of examples of non-verbal learning in his criticisms of the cognitive conception of skills and enskillment. We will outline Ingold's examples in a little more detail, because they will prove to be very useful metaphors in the study of meditation (we will go deeper into that in the third chapter of part II). Learning to ride a bicycle or playing a musical instrument are examples of skills that cannot be accomplished through verbal processing, although words may be useful in the beginning (Norris, 2005). Songs and stories for example can serve to conduct the attention of performers into the world (Ingold, 2000c). Words in this sense are not understood as the transmission of representations, but as a *tool* to direct the attention of the developing human being in the training and experience in the performance of particular tasks (Ingold, 2000a). This comes close to Smith's conception of 'tradition' as a means or collection of instruments which help the person in the practice of religion. A process of which the 'tradition' is not the goal, but a tool in the direction of an unknown goal. Smith used the term 'transcendence' to point to this 'something else' because he had no other language then his religious language to talk about this. He used the notion 'transcendence' to say that it is about 'something else' then just the tradition. It is through 'tradition' that a person gets somewhere else, transcends himself. We have translated this with Orye (2001) as it is through 'tradition' that a person changes. 'Traditions' can thus be conceptualized as 'learning tradition' through which the person undergoes learning processes. As a consequence, the study of learning demands a perspective which situates the practioner right from the start in the context of an active engagement with the constituents of his or her surroundings, it needs a dwelling perspective (Ingold, 2000a). The person and 'tradition' are part of a 'field of relationships'.

2.3.1 The 'education of the attention'

Let's start with Ingold's analysis of the learning processes involved in hunting, in which he contrasts the cognitive model with an ecological view of learning. Ingold argues that the Koyukon hunter receives the knowledge from his ancestor, not through a process of *enculturation* (cognitive model) but through a process of *enskillment*. When the hunter notices significant features of the landscape of which the western observer remains unaware, it is not because their source lies in the Koyukon mind and the cognitive representations and schemata that he would have learnt through enculturation (Ingold, 2000c). His knowledge of the world is gained by moving about in it, exploring it, attending to it. Learning to see is not a matter of acquiring schemata for mentally constructing the environment, but of acquiring the *skills* for *direct perceptual engagement* with its constituents (Ingold, 2000c: 55). We will see in part III how Buddhism is about a process in which knowledge is gained through the acts of exploring and attending to the mind through meditation, rather than learning theories about the mind. These practices cannot be reduced to programmed responses to external environmental stimuli, as it is conceived of in the cognitive model of procedural knowledge, nor can they be regarded as planned interventions in nature (Ingold, 2000c). When the hunter notices things in the environment which the stranger would not see, it is because his perceptual system is *attuned* to picking up information (as in the information pick-up theory in ecological psychology) critical to the practical conduct of his hunting, to which the unskilled observer simply fails to attend (Ingold, 2000c). Similarly, because of regular training in meditation, the Buddhist practitioner is attuned to picking up certain kinds of information in his mind, to which an untrained mind is not capable (see part III, chapter 2). The information is not in the symbolical-cognitive schemata in the head,

as the cognitive model suggests, but in the world and its significance lies in the relational context of the hunter's engagement with the world, as the ecological model emphasises. In meditation, the mind is seen as the environment with which one interacts. The interaction in meditation is also about an active engagement, and not just a passive relaxation, as some tend to think. The perceptual system of the skilled practitioner may be said to resonate with significant features of the environmental context of action (Ingold, 2000g). The more skilled the hunter (or the Buddhist practitioner) becomes, the more knowledgeable he becomes. With a finely honed perceptual system, the world will appear to him in greater richness and profundity. A Cree hunter is a perceptually skilled agent when he can detect subtle clues in the environment that reveal the movement and presence of animals (Ingold, 2000b). In the case of the Buddhist practitioner, it will be about being tuned in to detect more and more subtle events in the mind and to adjust one's perceptual system in order to keep a balanced mind, without falling asleep or becoming overagitated. New knowledge comes from acts of discovery, rather than imagining, from attending more closely to the environment, rather than reassembling one's picture of it along new conceptual lines (Ingold, 2000c). This accounts both for the hunter's knowledge of the forest as the Buddhist's knowledge of the mind.

This kind of knowledge people have of their environments, is not knowledge of a formal authorised kind, transmissible in contexts outside those of its practical application. It is based in feeling and a sensitivity, that has developed through long experience of conducting one's movements in a particular environment (Ingold, 2000b), whether it be the hunter in a forest or the Buddhist in interaction with his mind. It rests in *perceptual skills* that emerge through a process of development in a specific environment (Ingold, 2000b). Learning is not just about passing on information from one generation to the next, independent of the situational contexts of the human's life and activities or without the experience, perception and action involved. Learning is about an education of the attention, about a fine-tuning or sensitization of the entire perceptual system (Ingold, 2000e). It is about learning to attend to the world in certain ways through involvement with others in everyday contexts of practical action. Hence capacities of perception, as of action, undergo continuous formation within processes of ontogenetic development. It is not about the acquisition of cognitive schemata or mental models, but about the acquisition of skills for direct perceptual engagement with its various constituents.

The importance of reconsidering the body as a perceptual system in ecological psychology, rather than localising perception in the mind (as in cognitive psychology), opens up the possibility of looking at learning processes in in this entirely different way. Learning doesn't necessarily involve symbolical, cognitive or procedural information in the head. Non-verbal modes of memory and processing can be conceived of as an intelligence of the body (Norris, 2005). Also Latour (2004) is pointing to learning as an education of the attention and the important role of the body, the senses and the environment within this learning process. In his view, the body is not a provisional residence of something superior: the mind, an immortal soul, ... It is by the body that we learn to register and become sensitive to what the world is made of (Latour, 2004).

For example when we want to learn to register the smallest contrasts in an odour kit, one needs a weeklong training, starting with a dumb nose, which cannot differentiate between sharp contrasts and ending up with a nose which becomes

sensitive to the more and more subtle differences (Latour, 2004). What do we need in this education of our nose? According to Latour (2004), it is not enough to have a nose for this learning process. One needs the odour kit as part of a 'learning environment' to move the trainee from inattention to attention (Latour, 2004). The odor kit has taught the person to be affected. Also the teacher and his sessions are important aspects in this learning process (Latour, 2004). The trainee has moved from an inarticulate subject, i.e. someone who whatever the environment is like (the odour kit, or what the other says), always feels, acts and says the same thing, to become an articulate subject, who is affected by the environment (the odour kit, or other people around him). Latour contrasts this way of learning to the other model based on a dualism between the body and the world, which sees language as the intermediary that establishes connections between the world and the subject. This model does not fit the data in this case. The intermediaries which are used in the education of the nose (the odour kit, language), disappear once the connection has been established (Latour, 2004). They are only *learning tools*, *instruments to aid perception*. So also Latour argues that in these learning processes, language doesn't function as an *intermediary* between the world and the mind. As in ecological psychology, he considers language as an *instrument* to teach the person how to direct his attention and perceptual awareness.

Perception is not about an activity of the mind on the bodily deliverances of senses, but about the ongoing activity of the whole person *moving* around, exploring an environment, intentionally attending to the world and continually adjusting the receptor organs so as to pick up information –in the Gibsonian sense of information pick-up (Ingold, 2000g). In arguing what learning processes are, Ingold (2000d) is talking about a 'movement of the attention' and 'guided rediscovery'. In this way each generation contributes to the next, not by handing on a corpus of information in the sense of representations, but rather by introducing novices into contexts which afford selected opportunities for perception and action (Ingold, 2000p). This is what Gibson called the 'education of the attention'. *Words* in this view are *instruments for perception*, <u>not</u> *representations of the external world*.

We can recognize Smith's conception of 'traditions' as instrument,t in this ecological conceptualisation of words. Smith's emphasis on the relation between 'cumulative tradition' and 'faith' can be translated as: 'traditions' as 'learning environment' which aids the person to discover things for himself. 'Faith' is not about believing in an idea or other symbolical content, but about finding out something for himself. His expression "*seeing* the truth for oneself" already contains this perceptual aspect as contrary to conceptual knowledge. This experience of the religious individual (i.e. 'faith') cannot be reduced to a belief in an idea, as Wiebe and Smart proposed in order to be able to have a scientific study of religions.

2.3.2 Learning through experience in 'tradition' as learning environment

Let's see how Ingold interconnects this 'learning as experience' of the individual with the notion 'tradition'. We take the concrete experience of bilum-making skills. How is this skill passed on from generation to generation? It is the result of a process of 'guided rediscovery' in which the role of the experienced bilum-maker cannot be underestimated. He is part of the 'learning environment' of the novice and is setting up a learning environment in which the novice can gain in proficiency for himself

(Ingold, 2000p). Again we can parallel this example with Buddhism, in which the role of the teacher is crucial. The key to fluent performance in bilum-making lies in the ability to co-ordinate perception and action as well as the gradual attunement of movement and perception (Ingold, 2000p). As in any craft, the skilled maker is continually and subtly responsive to the modulations of her relation with the material. This involves the alignment of one's movements through observation and a focusing of attention with that of the expert. It is about a re-enactment. Verbal instructions are a steppingstone, which get meaning from their positioning within a field of practice or taskscape. Except for the fact that meditation itself cannot be learned through observation, the example perfectly parallels the role of the learning environment Buddhism as a 'tradition', plays for the Buddhist novice in learning the skill of meditation. The constant feedback, readjustment and verbal instructions, which are further applied immediately (re-enacted) in the context of the mind during meditational practice are crucial to the learning process.

This stands in sharp contrast with the cognitive model that Ingold (2000p) criticizes. In this model, the novice is first observing, and internalizing the movements. Thus by watching the activity of her mother, a young girl absorbs and assimilates the intrinsic rules of the craft. Once these are firmly implanted in her mind, she can proceed to execute them in the production of her own work (Ingold, 2000p). In order to show the shortcomings of this model and to show how for example only verbal instruction, without this living 'learning environment' cannot do, Ingold (2000p) set up an experiment. The goal was to try making a completely unfamiliar and rather complicated knot, guided only by a manual which provided detailed verbal instructions and step by step diagrams. The problem they experienced while attempting to make the knot, lay in converting each instruction, whether verbal or graphic, into actual bodily movement. The only escape was patient trial and error. By this Ingold (2000p) showed that by having a verbal program in the mind, this doesn't mean that one is a skilled practitioner. Knowing how to make knots cannot be handed down as a package of rules and representations, independently and in advance of their practical application.

Ingold (2000o) tries to open up a new perspective on all kinds of skilled practices and not only to this concrete example of bilum- or knot-making. A representation or mental model in the imagination of the practitioner, prior to its execution in the material will not do. Even in a skill like basket-making, the form is not simply impressed upon the material from a pre-existing image in the maker's mind. The actual concrete form of the basket does not issue from an idea, but rather comes into being through the gradual unfolding of that field of forces set up though the active and sensuous engagement of practitioner and material. It emerges through a pattern of skilled movement (Ingold, 2000o). A skill in this sense is neither about something in the memory or the head of a person, but about a flexibility and sensitiveness to a changing environment, whether in basket-making, hunting, pot-baking, or even in meditation and post-meditation time as we will see in a detailed way later (part III).

Crucial elements in this view of skilled learning are the person's experience, including his body, senses and the attention pervading these perceptual systems. The environment as well as other carriers of the tradition can neither be omitted in the study of these skills. They are inherently related to each other, or in Smith's words: 'cumulative tradition' and 'faith' cannot be studied separately. Using ecological

psychology, we are able to make Smith's proposals understandable in non-religious terms.

2.4 Summary: new concepts for the study of Buddhism

As we discussed in part I, Wiebe (1977) acknowledges the point of the non-cognitivists: religion is more than a cognitive interest in the world. The problem for him is however that we cannot study these non-cognitive, non-symbolical experiences in an objective way. For Wiebe (1992) however, we *can* study the significations they carry for the subjects. The *essence* of religion for Wiebe is and stays the doctrines, the 'belief system' (Wiebe, 1977). Smart also wanted to give the religious experiences a place in his theory, but the solution he came up with could neither do to study Buddhism as we saw in part I. With Smith we found an opening for studying religion in another way than what Smart and Wiebe proposed. But Smith was criticized enormously and his proposal for the study of religion got misinterpreted by many authors. So while Smith stepped out of a paradigmatic thinking in which these authors were stuck, he caused us a lot of problems, being so difficult to understand with his religious language. To overcome this problem we used Ingold's conception of 'tradition' and learning processes in order to make Smith's point more clear in a non-religious language. Now let us resume what we have come up with in order to look at Buddhism in a scientific and non-reductive way. In this way we hope to have found a solution which would be both satisfying for Wiebe, who was looking for a scientific way to look at religion; for Smart who wanted to look at religion in a non-ethnocentric way and for Smith who wanted to look at religion in a non-reductive way.

In our solution we don't want to look at religion as a body of externalia, doctrines, beliefs and convictions people hold. We want to see religion as a 'tradition' which is containing a body of symbols as means, tools or instruments to facilitate a learning process in the individual. The symbols of the 'tradition' therefore cannot be studied as would they contain the entire signification in themselves, as a static body of knowledge, or as a *content*. We have to look at what the 'tradition' and its symbols do in the lives of religious individuals. This is where we find the signification of the symbols, as what *process* they facilitate in individuals. So if we want to study the Buddhist tradition, we have to study it in *relation* to the people who are part of the tradition. We see tradition as such as a relational term. People are part of the 'tradition' as well as the 'tradition' becomes part of a people's lifes. Person and 'tradition' are part of a broader 'field of relationships'. Through the person's wayfinding in life he goes into interaction with his social and physical environment and through this *experience* he grows further into his tradition. The experience of the person is also part of the process that the tradition facilitates in his life. The tradition as well as the social and physical environment of the person are part of a 'learning environment'. This is how we would like to use the concept 'tradition', as a 'learning environment' which sets up situations into which a person can discover and feel things for himself. We also want to take the contribution of other experienced practitioners in this process into account. We see 'traditions' as 'learning traditions', who pass learning tools from generation to generation, by which the person can find out things for himself in his experiences in life. We cannot separate the transmission of the tradition from the 'field of relationships' to which the person belongs. In this way tradition is present in the life, in the practices and experiences, or in short, in the learning process of the person. The tradition cannot be passed on as a corpus of

knowledge standing in itself, present in a library for example. The transmission of a 'tradition' happens through people who are becoming part of the tradition.

We can find the tradition in the processes of individual's lifes. It is also not just present in the people their lifes in the form of convictions held in their heads. We don't want to study the person as a passive receiver of these convictions, but we want to study the *activities* of the people, by which they participate in a tradition. The tradition is acted out in a process. Experience is not present in some internal subjective space, but in the practical engagement of the person. What does the person do with this tradition in his personal life? The process in which an individual grows into a tradition is affecting the whole person as a living being in his environment. This process is changing the individual as a whole. Whatever the end result of this process is, is what is interesting us in the study of Buddhism as well as the processes themselves that people undergo. Is the person for example being a Buddhist by reading books and what does this bring to the person? Or is the person being a Buddhist by discussing about Buddhist themes with his friends and relatives or on discussion forums on the internet? And what does this bring to the person? Is the person being a Buddhist while reciting Buddhist puja-texts? And how does this affect the person? Is the person especially being Buddhist through burning candles in front of the Buddha-images in his house? Is the person for example practicing meditation? What meditation and how does he practice meditation, and how does this meditation affect him and others in his life?

Tradition and traditional knowledge are regenerated in the experience of people. So there is not only one way in which a tradition can take form, but there are maybe as many ways as there are Buddhists. People engage in an interaction with a tradition without knowing where this will bring them. This depends namely not only on the tradition, but also on the person and how he uses the tradition in his life[4]. Therefore we will study the experiences and activities of the people, in what way they relate to the Buddhist tradition and what they learn through that.

Gibson's ecological psychology and Ingold's analysis of enskillment will prove very useful in our study of Buddhist practices of meditation. We were confronted with the limits of Smart and Wiebe's methodology of studying the human being as a *homo symbolicus*, in the study of meditation. It is here that the psychology of Gibson will allow us to study those things which go beyond words. We will look at meditation as a specific learning process, namely as enskillment in which the whole person is involved. By person we mean a 'field of relationships' in which are involved his heart (emotions), body and perceptual systems, which relate him to his social, physical and psychological environment. The mind and the attention are pervading this field of relationships. Also in the study of meditation, the 'environment' and 'perceptual

[4] We agree with Smith that in the study of religion we should not judge whether this is the right way or not to participate in a tradition. We leave that question open.

systems' are very important concepts. In part III we will find out how we can apply the notion of 'perceptual fine-tuning' and the 'education of the attention' in this practice. The knowledge meditation practice generates, will be better understood with Gibson and Ingold's conception of knowledge than with the conception of knowledge within cognitive psychology. See appendix 1 for an extensive discussion on knowledge as conceptualized from a cognitive psychology versus an ecological psychology. What Smith tried to explain with his notion of 'faith', which would be left out in the study of Smart and Wiebe, can be translated as human experience as knowledge, perceptual knowledge or habitual knowledge within an ecological model of knowledge, rather than cognitive knowledge. Also Norris (2005) tried to point out the importance of different modes of cognition of the body and feelings and particular qualities of perception and memory in religious processes. The emphasis of verbal description and mediation from the intellect in our Western frame of thoughts is less dominating in these concepts.

3 A middle way: Buddhist psychology and perception

We have addressed the underlying ontogenetic presumptions in our Western psychological models and their influences on the concepts we want to use in our study of Buddhism. But what justifies us to take ecological psychology as well as its theory of direct perception and the possibility to educate the attention and the senses, as a framework for our study of Buddhism? Let us now first take a look at Buddhist psychology in order to get a clearer view of these three psychologies and the way they are or aren't related to each other. We showed a short overview of cognitive psychology and ecological psychology. Both are very interesting approaches and seem to address the empiric phenomena in a plausible way. However they seem to be contradicting each other strongly. In scientific debate they have also relentlessly attacked each other. The cognitive model argues that human perception of the environment is mediated by cognitive models and representations and is mostly a process of construction in the mind. Ecological psychology rejects this view entirely and argues that information is directly retrieved from the environment, without the need of any mediating models in the mind. We will see how Buddhist psychology uses a completely different theoretical framework and approximation of these phenomena, but seems however to be able to include both direct and mediated perception into its theory. We can see similarities, but also important differences with both Western psychologies.

In this chapter we will take Buddhism as a partner in questioning the human mind. Mignolo (2000) argued that it is interesting for Western science to take a look at non-Western ways of thinking. Mignolo calls these 'border thinking' because they are situated at the periphery of the hegemonic Western discourse. According to Mignolo these kinds of 'border thinking', however, have the potential to broaden our Western theories and the often paradigmatic thought frames in which we are trapped. So this chapter is multifunctional in that it will help us to put Buddhist psychology in the context of the psychologies which are permeating our concepts in the study of Buddhism (as our object of study). It also has to help us justify the turn we have taken to take ecological psychology as our starting point. And next to that, taking a look at Buddhist psychology could throw some new light on our own, Western, contradicting psychological theories about the human being and perception in particular.

It is only in part III that we will take Buddhism as the object of our study, using the concepts outlined in chapter 2 of part II. In part IV we will justify using Buddhism as a partner in Western psychology.

There is an enormous body of Buddhist literature concerning the subject 'perception'. For example in the Abhidharma literature we can find a psychological model of the mind (Geshe Rabten, & Batchelor, 1978) and a detailed overview of the different kinds of perceptual consciousness (deCharms, 1999). There are two sets of Abhidharma literature: the lower-set based on Vasabhandu's *Treasury of Abhidharma* and the higher-set based on Asanga's *Compendium of Abhidharma* (Geshe Rabten *et al.*, 1978). The Abhidharma literature had become elaborated into eighteen different schools that debated each other on various topics (Varela, *et al.*, 1993). The Sautrantika literature, which is situated within the Gelug pa branch of Tibetan Buddhism, along with their oral commentary, are valued for detailed descriptions of how thought and direct perception know their objects (Klein, 1991). The Sautrantika

system also explains the relationship between intellectual and meditational understanding of reality (Klein, 1991). In the Madhyamika philosophy of Nagarjuna, which originated 500 years after the Buddha's death, we can find a teaching about emptiness ('sunyata') and its relation to the perception of reality. This understanding of perception and cognition approximates Merleau-Ponty's phenomenology and the more recent ideas in psychology of cognition as enaction (Varela *et al.*, 1993).

Buddhist philosophy and psychology however should not be seen as an abstract theory, because it is not to be divorced from meditational practices or from daily activities of life. The texts including the philosophy also included meditation manuals (Varela, *et al.*, 1993). The Mahamoudra tradition within the Kagyu pa branch of Tibetan Buddhism also includes interesting opinions and practices concerning perception.

In this article we will restrict ourselves to using secondary literature of these Buddhist texts or translations of primary texts which include oral commentaries. In Buddhist tradition, oral commentary from respected practitioners is considered an important source of knowledge and these days, they are often also published. We want to respect this in our article. Next to that we will also make use of oral commentaries of texts, like for example the *Ocean of Definitive Meaning* from Wangchoug Dordje on Mahamoudra, since the Kagyu pa order is mainly an oral tradition and texts are not playing such a central role as they do in Gelug pa tradition. Klein and deCharms extensively studied the primary texts of the Sautrantika system and their oral commentaries. Komito studied the middle way philosophy of Nagarjuna. Geshe Rabten and Lati Rinbochay are authorized Buddhist practitioners. Traleg Rinpoche is a well-respected teacher within the Kagyu pa Tibetan branch of Buddhism. Also Lama Karta is a well-respected Kagyu pa teacher. de Wit is an authorized meditation teacher, but also a scientist who extensively studied Buddhist psychology. Varela also was a Buddhist practitioner and student of the Dalai Lama, who as a neuroscientist also studied meditation in a scientific manner.

Since the bodies of literature concerning the topic of perception of reality are so enormous, we will only be able to give a short overview of it in order to give the reader an idea of some similarities and subtle differences with Western psychology. Buddhist psychology proves to show a bridge between the perceived contradicting statements of cognitive psychology and ecological psychology. This is important to our thesis since in chapter two we have contrasted cognitive and ecological interpretations of concepts such as 'tradition', 'faith', experience, learning processes, knowledge and so on. We have preferred the ecological interpretation in these concepts over the cognitive interpretation, since it is able to include certain phenomena (such as non-conceptual experiences) in Buddhism, which were only reduced to cognitive schemata in the cognitive approach. Just as in ecological psychology, in Buddhist psychology the unmediated interaction with the environment is seen as a possibility. This theory will also be important in the understanding of meditation.

Buddhist psychology doesn't reject the cognitive thesis that perception is also mediated by cognitive schemata. However Buddhism conceptualizes these processes in a subtly but very important different way than cognitive psychology. Buddhist psychology tends to speak more about a mixing of mental and perceptual objects. In

order to do this, they make an elaborate classification of 'perceptual consciousnesses' and 'conceptual consciousness' and how the objects of these six different consciousnesses are perceived. Both aspects of mediated and unmediated perception and experience (which we also find in ecological and cognitive psychology) are important aspects of Buddhist theory of mind and the meditational practices coming forth from these. So if we are willing to study Buddhism as an object, we should be able to include both aspects in our concepts. Since cognitive psychology couldn't do this, we reinterpreted our concepts with ecological psychology, even if we didn't want to throw cognitive psychology overboard, as Gibson (1979) did.

In Buddhist psychology for example the mixing of mental images with direct perception is considered ignorance and is identified as the key factor in human suffering. This elaborated Buddhist theory on perception comes close to cognitive psychology. Meditation techniques are designed to break through these conceptual frameworks in order to train the mind to gradually have direct access to reality. For example the method of stabilizing the attention and cultivating mental balance in shamatha meditation is a way to unravel the confusing (symbolical) network in our minds. Meditation will help us to gradually overcome the fixation on mental constructs, on our stream of thoughts narrowing our consciousness. It points the way to lively, direct and unmediated perceptions. The disciplines of the attention we can find in Zen, mindfulness-awareness training, shamatha and other meditation techniques are meant to overcome perceptual ignorance (as an important cause for suffering).

3.1 The human consciousnesses

The human being in Buddhist psychology is conceptualised as a creature of both conceptual thought *and* direct experience (Klein, 1991). Here we can see the links to both cognitive psychology (perception is mediated with cognitive schemata) and ecological psychology (information is immediately picked up from the environment without any intermediaries). These two ways of knowing are considered fundamentally different, yet also inextricably related (Klein, 1991). Buddhist psychology is taking a totally different turn than Western psychology. It is not only a matter of knowing the world in either a direct or a mediated way. Corresponding to these two ways of knowing, we distinguish two sorts of thinking and two sorts of corresponding objects (deCharms, 1999). Both ways of knowing, in Sautrantika have their shortcomings and useful sides.

On the one hand we have an 'ultimate mind' (also called 'direct perceiver'), which has access to 'ultimate truths' or has impermanent or 'specifically characterized phenomena' as its objects (Klein, 1998). This is a 'perceptual consciousness' which is free from conceptuality and is said to have direct access to reality. This aspect of Buddhist theory of perception comes close to the point of view of ecological psychology which claims direct, unmediated perception of reality to be possible. On the other hand we have a conventional or 'conceptual mind' which has access to conventional truths or has 'generally characterized phenomena' as its objects (Klein, 1998). The conventional mind is any conceptual state of mind. It is a mental cognition that does not behold its objects (of perception) immediately or barely as the direct perceiver, but cognizes them via the media of mental images (Geshe Rabten *et al.*, 1978). In contrast with ecological psychology, Buddhism also seems to

recognize the existence of intermediaries in perception, as we can find representations as intermediaries in cognitive psychology. We will explain these two ways of knowing and their objects in a more detailed way below.

3.1.1 'Perceptual consciousnesses'

'Perceptual consciousness' is considered to be a 'direct perceiver' that has direct access to its objects. The definition of a direct perceiver is: "a non-mistaken knower that is free from conceptuality" (Lati Rinbochay, 1980; deCharms, 1999; Klein, 1998). This definition was posed by Geshe Jambelsampel in his *Presentation of Awareness and Knowledge* and stands in direct contrast with the 'conceptual consciousness'. 'Perceptual consciousness' or the ultimate mind is a non-conceptual state of mind which perceives visual, auditory, olfactory, gustatory or tactile sense cognitions and immediate, non-mediated mental cognitions (!) (Geshe Rabten *et al.*, 1978). Here we cannot but notice the unusual, (read: totally different conception as in Western psychology) classification of mental phenomena, as objects of direct perception. We also found this idea above, with Ingold[5] who considered representations, not as the intermediary between the human and the world, but as co-arising phenomena in human experience. Mental objects such as thoughts, memories, phantasies and so on can thus, according to Buddhist psychology, also be *perceived* in a direct way. In Buddhism, different kinds of mental events are recognized. For example one can have a mental perception, which is similar in nature as a sense-perception (Geshe Rabten *et al.*, 1978). Both can be objects to the 'perceptual consciousness'. The difference between mental- and sense-perceptions is that sense-perceptions depend upon a physical sense-organ as their dominant condition (and are 'specifically characterized phenomena'), whereas the dominant condition of mental perceptions is said to be the mental organ (Geshe Rabten & Batchelor, 1978). This is not a physical organ but simply whatever state of cognition that immediately precedes the mental perception (Geshe Rabten *et al.*, 1978).

Perceptual consciousness is called 'direct' and 'non-mistaken' because it is a trustworthy perception of its object, as if a mirror would give an exact image of that which is before it (deCharms, 1999). 'Direct perception' is also called a 'complete engager', because when it perceives for example a table, it sees all the factors involved with it (Klein, 1998). Also Gibson (1979) stressed that the amount of information available in a flowing stimulus array is limitless and the human being just has to pick it up there without any mental models to interfere. The direct perceiving

[5] Representations in this view emerge together as complementary moments of the process of people's life in the world (Ingold, from the transmission). Representations are not representing the world, they are not the expressions of what one knows, they are not the intermediaries between the mind and the world. Rather they co-exist in the field of experience and are part of the lived-in-world, as well as the body and the senses are part of this world.

consciousness of a normal human being, however cannot capture the more subtle aspects of the objects (deCharms, 1999). According to Buddhism, 'perceptual consciousness' does not confuse aspects or factors of one object with those of another, as does conceptual thought (Klein, 1991). No interpretation based on former experiences is involved (deCharms, 1999). 'Perceptual consciousness' is free of thoughts (Komito, 1987). Therefore it is also called a 'bald consciousness', because it is standing in near contact with reality (deCharms, 1999). The eye and ear consciousness are 'perceptual consciousnesses'. Like this they are the same kinds of knowing, but they are considered different consciousnesses because they collect their knowledge in their very own way (Cabezon, 1988).

The possibility of human beings to perceive their environment in a direct way is considered possible in Buddhist psychology, which is not done in cognitive psychology. The description above is based on the Sautrantika system which differs on the topic of direct perception with the Prasangika-Madhyamika system, which asserts that all phenomena are just imputed by thought (Klein, 1991). As in Gibsonian psychology, in both the Sautrantika as the Madhyamika system we can find the idea that perception can be educated. We will come back to this in a more detailed way below. However, it is not because Buddhism recognizes direct perception as a possibility for human beings, (both as a phase in perception, but not only as a phase in perception), that it rejects the ideas we find in cognitive psychology, of mediated perception.

3.1.2 Objects of perception of 'perceptual consciousnesses'

The objects of perception of the 'perceptual consciousness' are called 'specifically characterized phenomena' (Klein, 1991) or 'ultimate truths' (deCharms, 1999; Geshe Rabten & Batchelor, 1978). They appear only to direct perception and not to conceptual thought (Klein, 1991). They are immediately experienced without intermediaries (deCharms, 1999). These objects appear from their own side in their totality, in all the richness of its details to the direct perceiver (Klein, 1991; deCharms, 1999). They are established by way of their own nature, without being imputed by thought (Klein, 1991; Klein, 1998; deCharms, 1999). Therefore it is said that they are a bald conscious of the object, without any additions by the conceptual mind (Klein, 1991; deCharms, 1999). 'Tathagata' is a Sanskrit metaphor for the reality which appears in direct, immediate experience (Hagen, 2003). Everything is nothing else then an endless ongoing stream. It is that reality which is perceived, before we start thinking, before perception is coupled to words (Hagen, 2003). There is no mixing (in place, time and nature) with mental objects (Klein, 1991). For example when a pot appears to direct 'perceptual consciousness', its appearance does not depend on any other pots, like the concept pot does depend on other pots in its appearance (Klein, 1991). That is why it is said that there is no difference between a 'specifically characterized phenomenon' and an 'objective specifically characterized phenomenon' (Klein, 1991). It refers to the actual, genuine object. This consciousness perceives reality in this very clear way. This stands in direct contrast with objects which are constructed in our thought, like concepts, mental images and so on (deCharms, 1999). That is why the 'perceptual consciousness', in Sautrantika literature, is considered an unmistaken consciousness, which is not contaminated by any errors (Klein, 1991).

3.1.3 'Conceptual consciousness'

'Conceptual consciousness' is defined in terms of the types of phenomena that are its appearing objects: 'generally characterized phenomena' or 'conventional truths' (in contrast with 'specifically characterized phenomena' or 'ultimate truths' as objects of 'perceptual consciousness') (Klein, 1998). These are mostly meaning-generalities which are derived from actual experience or passed experiences (deCharms, 1999). The conceptual mind is not limited to objects within sensory range (Klein, 1998). An object of conceptuality can also be induced by a process of thinking or reasoning. In that case, a meaning-generality is immediately retrieved without being induced by a perception at the moment itself. Conception is a responsive and reflective way of knowing (Geshe Rabten *et al.*, 1978). 'Conceptual consciousness' has the possibility to judge something 'this is a form', 'this is not a form' (Gen Damcho, 1999). The conceptual mind is considered as a specific mental moment and not as the fundamental nature of the mind itself (deCharms, 1999). This is an important difference with cognitive psychology which sees the mind as existing entirely out of mental representations. However in Buddhism, it is recognized that in one day we are constantly forming new conceptual thoughts, without end (Lati Rinpochee, 1999b).

3.1.4 Objects of perception of 'conceptual consciousness'

When one sees with one's eye consciousness (i.e. 'perceptual consciousness', a direct perceiver) a gold pot inside a temple and proceeds to another location, the shape, colour, and so forth of that former gold pot appear distinctly to the mind. The mind to which such appears is a 'conceptual consciousness', not a direct perceiver (Klein, 1991). The appearance which appears to that thought consciousness is the meaning-generality of the gold pot, not the actual golden pot (Klein, 1991). That is why the objects of 'conceptual consciousness' are called 'generally characterized phenomena'; they are realized by way of a meaning-generality (Klein, 1991). The definition of 'generally characterized phenomena' is that which is merely imputed by thought, without being an entity whose mode of subsistence is established from its own side (Klein, 1991). 'Conceptual consciousness' is a mind which realizes an object which has been created by the mind itself (deCharms, 1999). The concept which is being created by the mind, is similar to the object of perception only in a general way.

Impermanent objects or 'specifically characterized phenomena' cannot appear as fully to thought as they do to direct perception, but thought does actually cognize them and words do actually describe them (Klein, 1998). Also Gibson (1979) stressed how speech and language only convey a certain sort of information, which has been put into words and which doesn't contain the limitless information available to perception. Even if the mental similarity of a 'generally characterized phenomenon' doesn't have all the characteristics and richness of detail as the actual object, they do have a certain connection with the 'ultimate truths' or 'specifically characterized phenomena' (deCharms, 1999). Only 'specifically characterized phenomena' can be appearing objects of 'direct perception' and not of 'thought consciousness' (Klein, 1991). 'Specifically characterized phenomena' can be cognized by 'conceptual consciousness', through the medium of an image or meaning-generality. For example

the meaning-of-the-term ‘table’ differs from an actual table that appears to ‘direct perception’.

An image lacks the vivid detail of the ‘specifically characterized phenomena’ and does not function as an actual table (Klein, 1998). This mental image doesn’t have the inherent characteristic that it disintegrates from moment to moment as does a ‘specifically characterized phenomenon’ (deCharms, 1999). They are permanent and static in nature and do not undergo change (deCharms, 1999; Klein, 1998). This non-detailed and possibly abstract image serves as generality (Klein, 1998). All conceptual cognitions are said to be mistaken because reality is impermanent in nature and continually changing. Conceptuality for example makes us mistake phenomena as permanent and substantial, whereas they actually disintegrate from one moment to the next and are insubstantial (Klein, 1998).

3.2 Processes involved in perception

Both ‘perceptual consciousnesses’ as well as ‘conceptual consciousness’ and their respective objects are involved in the complex perceptual process (Klein, 1991). In this chapter we will explain how conceptual thought (mediated perception) and direct perception can operate simultaneously during the process of perception.

Perceiving depends on three conditions. Without these conditions no perception can take place. We need an actual object, a sense and a previous moment of consciousness (deCharms, 1999). This causal status of the previous moment of consciousness, the observed object and the senses are gaining more interest within Western neuro-scientific research (deCharms, 1999). This previous moment of consciousness as a ‘knower’ is an important factor in the process of perception, because it is this one that we can intentionally influence. For example, a trained mind can perceive objects in a condition of mental stability and concentration (deCharms, 1999) and this way of perceiving will be different than the perception of an untrained mind as ‘knower’.

The coming together of these three conditions (an object, a sense and a consciousness) is called ‘reg pa’[6] or ‘contact’ (Komito, 1987). In this first moment of seeing an impermanent object (‘specifically characterized phenomena’) such as a tree, a table or a river, eye-consciousness arises (Waldron, 2002). This is a moment of direct perception (Klein, 1998) in which the ‘conceptual consciousness’ and its mental objects haven’t played any role yet (Komito, 1987). This ‘direct perception’

6 This Tibetan term is derived from the Buddhist theory of the twelve chains. We don’t have the time nor place to elaborate on this theory but it indicates how different elements in our existence are causing an endless chain of suffering. The sixth chain, ‘contact’, along with this view on perception are playing an important part in the Buddhist understanding of suffering.

will immediately after become itself the object of a very small moment of 'mental direct perception' (deCharms, 1999). This moment of 'mental direct perception' usually cannot be noticed by an untrained mind (Klein, 1998).

Following this, conceptuality begins to operate (Klein, 1998). Here, the subjective mental factors (memories, emotions, ideas, presuppositions, etc.) start to play an important role. They create a 'mental image of the tree, table or river' (Komito, 1987). This 'mental image' will subsequently be mixed with the mental consciousness, thereby creating a 'conceptual cognition' in 'conceptual consciousness' (Geshe Rabten *et al.*, 1978). These discursive, conceptual ideas come into existence immediately after seeing the table with the eye (Lati Rinpochee, 1999a). The most distinctive element within a 'conceptual cognition' is its apprehension of the object by means of mixing it with a 'mental image' (Geshe Rabten *et al.*, 1978). This 'mental image of the tree, table, or river' appears to the thought consciousness as mixed with the actual 'specifically characterized phenomenon' 'table' (Klein, 1998). Our 'conceptual consciousness' is like a kind of boss which is getting involved in everything we do (Geshe Sonam Gyaltsen, 2000). In this way, sensory impressions will become ulted by the overlay of various layers of conceptual categories-frameworks, so that the perceived becomes ulted (Traleg Rinpochee, 2004).

The visual 'direct perception' will be mixed with the 'conceptual consciousness' (Komito, 1987). It is said to be the nature of 'conceptual consciousness' to operate in this manner (Klein, 1998). Therefore the table I see today (i.e. a 'specifically characterized phenomenon') appears mixed with tables of other places, times and natures and it seems to be one with the image of the table (Klein, 1998). So when an actual object appears to the 'conceptual consciousness', it is mixed with a 'meaning-generality', it is not the actual object, the 'specifically characterized phenomenon', appearing to the conceptual mind, but an image, a 'generally characterized phenomenon' (Klein, 1998), while to the eye-consciousness they are not mixed in place, time and nature, it is the actual object, the 'specifically characterized phenomenon' that appears (Klein, 1991). The 'conceptual cognition' is thus no exact reproduction of the object it refers to, but is based on 'mental images' (Komito, 1987).

We do not only perceive phenomena, but are injuring reality by this process. We are giving it an extra reality, which in reality it doesn't have (Traleg Rinpochee, 2004). These two appearing factors, the actual table (SCP: 'specifically characterized phenomenon') and its imputation: the 'image of a table' (GCP: 'generally characterized phenomenon') are undifferentiable from the viewpoint of appearance, despite the obvious difficulty that an object such as a table is impermanent, but its image is permanent (Klein, 1991). This mental or 'conceptual consciousness' is unable to distinguish between the direct perception of an object (SCP) and the mental image of the object (GCP) (Komito, 1987). The conceptual cognition is unable to distinguish between the object as it objectively exists and its own subjectively projected image that appears mixed together with the object (Geshe Rabten *et al.*, 1978). Therefore it is said to be a deceived state of cognition (Geshe Rabten *et al.*, 1978).

For example when we observe a flowing river, what actually appears to the eye consciousness are just the minute, presently appearing particles of water (Klein,

1998). This is direct perception. Those present particles of water are 'specifically characterized phenomena'. The minute particles which have already passed and those yet to come do not appear at all to direct perception. Nevertheless, when someone whose sandal was carried off by the river, earlier in that day, later returns to that spot, he feels "there is the river which carried away my sandal" (Klein, 1998). Although the particles of water that took the item have long since passed, it appears otherwise to the mind because earlier and later parts of the water's stream appear the same for the 'conceptual consciousness' (Klein, 1998). This is a case of thought superimposing a mixture of former and later times onto a present object observed in 'direct perception' (Klein, 1998). What is merely imputed by thought often *seems* to be established by way of its own nature, just as an imputed stream stretching from morning to evening only *seems* to appear to the eye consciousness which in fact, explicitly perceives only presently existing particles of water (Klein, 1998). The collection of particles at any given time are the 'specifically characterized phenomena' as appearing objects to 'direct perception' or the 'eye consciousness' (as perceptual consciousness'), while the stream is a 'generally characterized phenomenon' appearing to 'conceptual consciousness' (Klein, 1998). The conceptual mind is deceived because it mistakes the mixing of the actual object (the river) and the incomplete mental image of the river (which mainly exists of imputations of the mind) for the actual object (deCharms, 1999). The conceptual mind doesn't imagine them to be mixed, it simply appears to the mind in that way (deCharms, 1999).

This is a long explanation for what actually happens at the moment of contact between an object, a sense and a consciousness. After this process of deluding direct perception with the layers of conceptual excretions, 'mental fixation' occurs (Traleg Rinpochee, 2004). We stay attached to this interpretation of reality (Pema Chodron, 1991). While summarizing different phenomena in one concept or meaning-generality (as we saw earlier), the mind tends to also go a step further, namely to appoint an objective existence to what the concept refers to (i.e. mental fixation) (de Wit, 1998). For example when we are dreaming, our bodies and experiences are nothing but 'mental images', but while dreaming we are usually not conscious of that. Instead we concretise our experience as if it was pure objective reality (Sogyal Rinpoche, 1992). We fixate on a 'meaning-generality', which was fabricated in the mind. We form mental images in our mind and then get stuck in our head (Traleg Rinpochee, 2004). People perceive reality so differently, depending on their concepts and by this we all live in our unique reality (Sogyal Rinpoche, 1992).

Because of this habit of the conceptual mind to impute extra meaning and to see phenomena as permanent, the reality as we perceive it, is called a 'relative reality' and not an 'ultimate reality'. These fixed images we have of people, situations, ... then develop clusters of strong emotions[7] (Traleg Rinpochee, 2004). It is because of

[7] In Tibetan this good, bad or neutral feeling is called 'tsor ba', the seventh chain in the theory of the twelve chains (Komito, 1987). These mental movements (in Western psychology considered as cognitive and affective) are creating and deforming our reality (de

'mental fixation' that we are trapped in 'Samsara[8]' (Traleg Rinpochee, 2004). It is conceptuality that is considered responsible for all our mentally disturbing thoughts and emotions (Geshe Rabten *et al.*, 1978). This is the condition of existence wherein suffering and discontent are unavoidably experienced (Geshe Rabten *et al.*, 1978). The internal emotional responses we have to our experiences, whether wholesome or unwholesome, are also regarded as conceptual forms of cognition (Geshe Rabten *et al.*, 1978). Feeling arises not only on the basis of the eye consciousness, but also on the basis of thought, on what is remembered about or imputed onto that object. The feeling doesn't depend only on the actual object, but also on the internal image that appears to thought (Klein, 1998). For example, when we see a person, we often (if not always) make a selection of certain aspects of him. The eye consciousness sees the colour and shape and the conceptual, mental consciousness takes the badness of that person as its object (Klein, 1998). Someone else, seeing the same person, might see him as good (Klein, 1998). One is in fact largely reacting to an image in one's mind, even though there may be no awareness that such an image is present (Klein, 1998).

3.2.1 Direct perception *and* mediated perception

Above we have discussed an essential epistemological classification within Buddhism since the fifth century BCE (Klein, 1991). Directly perceiving consciousnesses take only 'specifically characterized phenomena' as their appearing objects, while 'conceptual consciousness' takes only 'generally characterized phenomena' as its appearing objects (Klein, 1991). The perception of 'conceptual consciousness' stands in direct contrast to that of the 'perceptual consciousnesses' because they know their objects on the basis of direct experience, and not on the basis of a mental imputation (deCharms, 1999). The object of the 'direct perceiver' is not coming from within the mind itself, but exists from its own side (Gen Damcho, 1999). Within the conceptual mind, the action comes more from the side of the mind itself: a 'meaning-generality' functions as connection or *intermediary* between the mind and the actual object (Gen Damcho, 1999). In this aspect of Buddhist theory we can recognize the ideas we also found within cognitive psychology, namely that the mind is playing an active role in perception. However the way Buddhist and cognitive psychology conceptualize this working mechanism is of a different order.

The memory or 'mental image' we have of the taste of chocolate that appears to 'conceptual consciousness' is like chocolate but is far removed from the taste itself.

Wit, 1998). The next step is that desire starts to arise. This is the eighth chain in the theory of the twelve chains, called 'srid pa' in Tibetan (Komito, 1987). Desire is also considered an important factor in suffering.

[8] Samsara indicates the cycle of suffering in which human beings are trapped, according to Buddhism.

What appears to ‘direct perception’ is the actual taste of chocolate, not something that is merely like it. Only ‘direct perception’ knows its objects just as they exist (Klein, 1998). Here, we can see a similarity with ecological theory of information-pick-up, in which Gibson argues for the direct perception of phenomena and immediate retrieval of information from the environment. This is making a big distance between perception and phantasy. In Buddhist Sautrantika system there is a great distinction between the objects of ‘direct perception’ and the ‘conceptual mind’. As good as all Buddhist systems agree that the conceptual mind cannot apprehend phenomena fully because it misses all the richness of direct experience (deCharms, 1999). Direct experience cannot be fully apprehended by the conceptual mind (deCharms, 1999).

Although ‘direct perception’ and conceptual thought operate separately in their own spheres, according to Sautrantika, most types of experience involve some collusion between the two (Klein, 1998). Once conceptuality begins, it operates simultaneously with subsequent moments of ‘direct perception’. This means that while the eye consciousness is apprehending the specific characteristics of is object, the thought or ‘mental image’ derived from the eye consciousness superimposes a ‘meaning-generality’ onto that object as well. One feels one is engaging in and reacting to only ‘direct perception’, while actually a ‘meaning-generality’ interferes (Klein, 1998). The ‘meaning-generality’ can be considered as a veil, which is withholding the mind from ‘direct perception’ (Gen Damcho, 1999). It is like a piece of cloth between my hand and my leg. The hand doesn’t hold the leg in a direct manner, there is some piece of fabric between it (Gen Damcho, 1999). It is in this way that the ‘meaning-generality’ can also be seen as something between the mind and the object of perception (Gen Damcho, 1999). This comes close to Bruner’s example we discussed in the chapter on cognitive psychology: where people extract some information from the incoming stimulus and read the rest from the cognitive models in their mind.

The ‘direct perceiver’ realises the object in a direct and unmediated way, without having to make use of an intermediary structure, ideas or mental models which originated in the conceptual mind (cf. ecological psychology). The ‘conceptual mind’, however can only realise its objects by way of an intermediary (deCharms, 1999). The conception: “this is a colour” is a reflection upon an object already presented to the mind by the visual sense perception. This is a simplified example of the way conceptuality constantly accompanies our sense experience of the world within the internal stream of thought (Geshe Rabten *et al.*, 1978). Our mind streams seems to go on in an unbroken way. Because of this commenting, we are not aware of many aspects in our stream of experience (de Wit, 2003). It is a veil hanging over direct experience and obscuring it. The mediating images or ‘meaning-generalities’, which are the objects of ‘conceptual consciousness’ are therefore also called an ‘obscurer’ in the process of perception, because compared with direct experience, it obscures the object (Gen Damcho, 1999). If for example we look with our eyes at a form and close them afterwards and try to call the form back to mind, it will be like as if someone is throwing a veil over our view of the object (Gen Damcho, 1999). That is because our conceptual experience is not as clear as our direct experience. With the conceptual mind, we no longer have a bald or undressed perception of the object (Gen Damcho, 1999).

In ‘conceptual consciousness’, there is always an intermediary factor, like as if we are looking at the world through a glasses (Geshe Rabten *et al.*, 1978). Just like a

man wearing a glasses, is unable to distinguish between the objects he sees and the lenses in his glasses, a conception of something is unable to distinguish between the actual characteristics of its object and the subjectively imposed characteristics of the mental image (Geshe Rabten *et al.*, 1978). The tendency of conceptuality to blur or generalize is considered a mistake if it goes unrecognized by the mind (Klein, 1998). According to the Sautrantika system nearly all ordinary experience involves such an unanalyzed mixture of conceptual thought and direct perception (Klein, 1998). According to the Madhyamika system, normal, untrained mental consciousness is always unable to perceive sensory consciousness or its appearing objects without the superimposed mental images (Komito, 1987). This is in accordance with Western neuro-scientific research which found that the brains capacity to grasp instant meaning is a basic pre-attentive process: it is done long before attention itself gets underway (Austin, 1998). The Sautrantika system, however, leaves the possibility for direct, unmediated perception open.

Here we find that Buddhism is taking a middle way between the extreme positions of cognitive versus ecological psychology. Even if Buddhist psychology recognizes the interference of subjective elements within perception (like in cognitive psychology), Sautrantika doesn't exclude the possibility of direct perception for the untrained mind (as in ecological psychology). All Buddhist systems however agree, that we can train direct perception through meditational practices. Meditation helps to calm down the mental internal chatter accompanying experience or perception, which helps us to get a clearer view of reality. Furthermore meditation trains the attention in such a way, that we become more sensitive to direct mental perception, something which cannot be perceived by an untrained mind. In this way it differs from cognitive psychology but comes closer to ecological psychology, and its theory of the education of the attention and the senses.

3.2.2 The experience of reality: objective or subjective? A middle way

In Buddhism, existence and experience are regarded as the results of the mental, vocal and physical actions of the human being (Geshe Rabten *et al.*, 1978). As we saw earlier, our experience is usually influenced by the concepts in our minds (deCharms, 1999). These preconceptions are the armour with which one habitually distances oneself from immediate experience (Varela *et al.*, 1993). These concepts and convictions are distancing us from an unbiased and open-minded awareness of the world (de Wit, 1998). Perception is mostly so completely submerged in erroneous over-reification that phenomena are not perceived as they actually exist (Klein, 1998). Our daily experience comes into existence in dependence on the way we conceptualise it mentally (de Wit, 1998). Therefore experience is given as conceptual experience (de Wit, 2003). It is thus neither an exact mirror of nature which reflects things 'as they are', nor is it a unilateral projection of *a priori* categories, since the cognitive capacities of a sense organ are also correlatively defined by the kinds of stimuli that may impinge upon it (Waldron, 2002). Cognition is neither purely subjective or wholly objective (Waldron, 2002). The world of experience is a complex enmeshment of objective and subjective elements (Klein, 1998). It is not an illusion, nor the ultimate reality but an emulsion of both (de Wit, 2000). This also explains why for some people this world feels like heaven and for others like hell. We make the wrong assumption that what we see is objectively real (Sogyal Rinpoche, 1992).

Next to that there are certain thoughts which have received such a reality for us that we have started to live in them. Not the world around us, but our thoughts have become our psychological environment (de Wit, 2000). Our mind then loses itself in this self-created and egocentric mental world, which is obscuring our perception as a veil of projections we have laid over the world (de Wit, 2003). Because of that, we don't see the phenomena for what they really are and we don't have the mental ability to distinguish between the objective and the subjective aspects of our reality (de Wit, 2003). This has serious psychological and social consequences (de Wit, 1998). Let's take an example from the teaching of Traleg Rinpoche (2004): "Today, she came home late and before too. So what is going on?" And later we see her laugh with someone and we think: "that's it!". We take what we see for granted and think it is the way we see it, but it is not (Traleg Rinpoche, 2004). In our experience, phenomena and the mind are not differentiated. The phenomena are understood in terms of the mind (Traleg Rinpoche, 2004). So if our mind would not be so jealous, then the man in the above example, would have a different experience, than that he feels cheated on.

Our experience of reality will always be influenced by the kind of mind we have, there is no bypass to that (Traleg Rinpoche, 2004). We should realise these experiences are only appearances, but we are ignorant of this and take the appearances to be the reality (Lama Karta, 2004b). Everything with which we are confronted is a relative reality. This reality is also truly there and we do experience it, but this doesn't mean this corresponds to the ultimate reality (Lama Karta, 2004b). It is here that we can situate the Buddhist concept 'emptiness' (Traleg Rinpoche, 2004). This concept is often used in the wrong context, from a wrong understanding. Emptiness *doesn't mean* that the trees and the rocks wouldn't exist and would only be mentally. 'Emptiness' doesn't mean that something would not be there, things do exist (Traleg Rinpoche, 2004). 'Emptiness' means that one becomes sensitive for the interrelational character of phenomena (Lama Karta, 2004b). When we analyse an appearance or a phenomenon, we will see how it is a complex network of relationships[9]. This stands in contrast with our habit to conceptualise phenomena as static (GCP) (Lama Karta, 2004b). That the relative reality we create in this way, doesn't correspond with the actual reality, is what is meant by the concept 'emptiness'. We will furthermore fixate on this relative reality and this will influence the way we approach the world (Lama Karta, 2004b). Whatever reality there is, will not only reflect the structure of consciousness of the mind, but will only be able to proceed from the structures the mind lays out (Traleg Rinpoche, 2004). Reality does exist, but we help to create her as well. Just like in a dream, we create a reality for ourselves (Wallace, 1993). We unconsciously allow our negative emotions to project

[9] The view on phenomena as networks of complex relationships is in accordance with the ecological conception of a human being as a 'field of relationships', of which a tradition, the environment etc. are a part. So ecological psychology as our starting point seems to be in accordance with the Buddhist view on perception and reality.

and crystallize entire realms around us and to define the style, form, flavour and context of our life in it (Sogyal Rinpoche, 1992). In the very act of interpreting the universe we are creating our world (Sogyal Rinpoche, 1992). This explains how the world co-arises with our cognitive systems (Waldron, 2002). Therefore, everything we experience is also dependent on the mind (Traleg Rinpoche, 2004).

We should break down our dualistic notion of subject-object, that our experiences would exist independently of mind and that mind would exist independently of the world and that there is contact, but they remain separate (Traleg Rinpoche, 2004). Though the mind and the world are not separate, it just became a habit to think like that (Traleg Rinpoche, 2004). One of the main characteristics of Buddhist psychology is that it avoids to presuppose the existence of objects or subjects (de Wit, 1998). Experience, according to the Sautrantika system, is influenced by on the one hand: 'generally characterized phenomena', which are merely imputed by thought, without being an entity whose mode of subsistence is established from its own side; and on the other hand: 'specifically characterized phenomena', which have a mode of subsistence that exists from its own side (Klein, 1991). So experience both has an objective and a subjective side. Also in the concept of 'emptiness', Buddhism is avoiding both extremes of eternalism and nihilism (Lama Karta, 2004). Subject and object are considered mutually dependent entities: we cannot consider one without referring to the other (Geshe Rabten *et al.*, 1978). This is also what we have tried to do in this article in part I and II. While studying Buddhism, we also wanted to take our own culture into considerance, because that would certainly influence our outlook on Buddhism. What we have tried to do, however, is to at least try to be aware of it.

3.2.3 Perception as a key factor in human suffering and happiness

In Buddhism suffering or happiness are seen as consequences of the mind (Lama Karta, 2004b). We explained above how the conceptual mind starts to mix into our direct perception, so that phenomena are not perceived as they exist (Klein, 1998). Or in other words, because we interpret phenomena, we see them in a deformed way and that is why consciousness is said to be biased by 'ignorance' (Komito, 1978). Next to that we fixate on our thoughts, convictions, hatred, preferences, opinions, expectations, obsessions, and worries, in a way that we no longer realize that they are only thoughts (Hagen, 2003). Earlier we already mentioned that conceptuality and our fixation on this relative reality is considered responsible for all our mentally disturbing thoughts and emotions and causes the condition of existence, in which suffering and discontent are unavoidably experienced, also sometimes referred to as Samsara (Geshe Rabten *et al.*, 1978). This misperception is involved in ignorance and ignorance is considered to cause suffering in Buddhism (Klein, 1998).

Buddhism distinguishes between different kinds of ignorance. 'Conceptual confusion', for example is about dressing up reality with wrong and contradicting ideas, while 'perceptual confusion' is about confusing relative reality (in which we participate in creating it), for the 'ultimate reality' (de Wit, 2000). Furthermore Buddhists distinguish between 'conceptual ignorance', which is about missing the necessary conceptual structures to understand reality and 'perceptual ignorance', when our conceptual structures are leading us away from consciously experiencing the phenomena in their fullness (de Wit, 2000). The latter is about seeing our thoughts

about a situation for the situation itself. We see the map of the landscape for the landscape itself, or confuse the mental representation for the represented (de Wit, 2000). Because we are not conscious for when we are using this inner map, it is said that we miss the mental 'ability of distinction'.

According to cognitive psychology, however, this would be structurally implicated in the kind of psyche we have, with no bypass to that. It would be human nature to perceive things only in this way, via our mental, cognitive models and representations as intermediaries between the world and the mind. However, from the point of view of mindfulness/awareness meditation –which is gaining more terrain in cognitive psychology, humans are not trapped forever in this abstract attitude of conceptuality, which is an obstacle to seeing reality in a direct way (Varela, *et al.*, 1993). This theoretical point is an aspect however which has not found its way into cognitive psychology yet. Even if mainstream cognitive science has found many positive effects of these meditations on human wellbeing, it still has to find a theoretical fundamental to explain these.

According to Buddhist psychology, however mental fixation and mediated perception are only mental habits, which have indeed gotten deep trails in the mind, and are difficult to be changed (de Wit, 2003). Not only psychology, but a whole culture can become therefore convinced about the unavoidability of these structures in the mind. They are seen as absolute and become part of our image of the human being (de Wit, 2003). It is this underlying image of the human being as a disembodied mind, walking around with representations in its head about the world around him, that we have found back in the study of religions in part I and that we have identified as being part of a cognitive paradigmatic way of thinking and have tried to filter out of our concepts in chapter 2 of part II. This image of the human being has an influence on the study of Christianity but also in the study of Buddhism, where authors, like Steven Katz () start from the initial premise that conceptually unmediated experiences are impossible, because human experience would invariably involve memory, apprehension, expectation and language (Wallace, 1999). That the human untrained mind operates like this is also recognized by Buddhism. According to Buddhism however, this way of perceiving, along with its consequences of suffering, are not seen as intrinsic properties of the mind. According to Buddhism, these are also due to the way in which the mind has been conditioned and trained in the past. It is possible to overcome any unwholesome and disturbing tendencies by training the mind in another way (Geshe Rabten *et al.*, 1978).

3.2.4 Cutting through conceptual frameworks with meditation

In order to understand the ignorance claimed to be the root of all suffering, one must investigate the objects perceived as well as the perceiving consciousnesses themselves (Klein, 1998). Buddhist dharma is meant to help people in gaining insight in how our experience comes into existence from moment to moment and how experience is being coloured by certain ideas, feelings, preconceptions, hopes, fears, convictions, whom mix with our direct perception of the ultimate reality (de Wit, 2005). The above articulation of the limitations and deceptions of what is also called *ordinary* cognition or perception, leads us to depict a *model of mental development* that purportedly leads to liberation from precisely those errors (Klein, 1998) of not recognizing the role of the mind in our perception and therefore mistaken perception with the ultimate reality. 'Ordinary' cognition, perception or experience stands in

contrast with the cognition, perception or experience of well-trained minds within this model of mental development. The concern in Buddhism was about overcoming the limitations and errors of ordinary perception in order to gain a liberating knowledge of reality (Klein, 1998). The goal of perception in Tibetan Buddhism therefore is about training perception in order to get to a direct ultimate access of the ground of human experience (deCharms, 1999). This is done through conceptual as well as non-conceptual methods and methods which are both conceptual and non-conceptual (de Wit, 2000). For a discussion on how conceptuality is used to cut through conceptual frameworks: see appendix 2. But also correct conceptual images must be taken away, because these are still obscuring a direct perception (Komito, 1987). To break away from the cycle of suffering, it is necessary to come to a non-conceptual way of knowing (Komito, 1987). To stop our perceptual ignorance which is caused by this veil of conceptuality, Buddhism developed disciplines which make this direct perceptual knowledge possible (de Wit, 2003).

We can see this development as a freeing oneself from the attitudes, ideas, conceptions, opinions, views, convictions etc., which make us blind for the realities in our lives (de Wit, 2003). For example the method of stabilizing the attention and cultivating a mental quiescence (shamatha) is a way to unravel the confusing network in our mind (de Wit, 2003). Yet beginning meditators are generally astonished at how difficult it is to be mindful of even so uncomplex an object as for example the breath. Meditators discover the mind is constantly seized by thoughts, feelings, inner conversations, daydreams, fantasies, sleepiness, opinions, theories, judgements about thoughts and mental events that the meditators do not even realize they are occurring, except at those brief instants when they remember what they are doing, namely being mindful for the breath as object of meditation (Varela *et al.*, 1993). These meditation techniques will help us to gradually overcome the fixation on mental constructs, on our stream of thoughts, which is narrowing our consciousness (de Wit, 2003). Also Zen is a way which will so reshape awareness that it finally grasps the reality of things as they really are (Austin, 1998). It points the way to lively perceptions, to have direct access which bypasses this mental clutter (Austin, 1998). The disciplines of the attention we can find in Zen, mindfulness-awareness training, shamatha, ... are meant to overcome perceptual ignorance, which is the cause of not having access to ultimate reality, because of the veil of conceptuality which is covering it (de Wit, 2003). It helps us to look at the landscape, instead of looking at the map of the landscape, while thinking we are looking at the landscape. Like this we are able to look in a new and unbiased way to who and what we and others are now (de Wit, 2003). This means the mind is present in embodied everyday experience. These techniques lead the mind back from its theories and preoccupations, from this abstract attitude, to the situation of one's experience itself (Varela *et al.*, 1993). If you meditate regularly you will experience how the mind indeed becomes clearer and less beclouded. For example when you talk to your friend in the train, you will have more eye for her actual state, you are more present with her in that actual moment, rather than talking to a mental image in your head, which you have built up in the past and appears mixed with your actual friend to your mind. You will notice changes in her more quickly and will not fixate on an image built up of the way she has been in the past. For example when someone we have known to always be a rather depressed person, suddenly gets over her depression, it will be difficult for us to notice these subtle changes, because we associate that person with an image in our heads (i.e. mental fixation).

While if we are able to be present with that person in a more direct way (as a consequence of our mental training), we will be able to notice those subtle changes.

If we suspend this mental fixation and are able to hold phenomena vividly present in our field of attention and judgements don't enter in it, we will have a primordial view of phenomena (Traleg Rinpoche, 2004). For well-trained minds it is possible to be very mindful of the conscious process of direct perception, from moment to moment (deCharms, 1999). That is because these meditation techniques are influencing the consciousness, the 'knower', as one of the three dependent conditions for perception to arise (object, sense and 'knower') (deCharms, 1999). The result is a more nuanced experience of self and world (de Wit, 2003). An untrained mind usually doesn't have this way of experiencing because of the habit of the mind to impute concepts on the phenomenal experiences that aren't really there (Traleg Rinpoche, 2004). Through meditation you can cut through these conceptual frameworks (Traleg Rinpoche, 2004).

These methods are helping us to get a more direct access to our experience on the one hand, but on the other hand they should render visible in what way our own thinking is author of our experience of reality (de Wit, 2000). The clarity of mind we develop helps us to recognize the relativity of our experience of relative reality or conceptualized experience (de Wit, 2003). This kind of clarity is comparable to a young child looking in a non-judgmental and unbiased way at the frescos in a temple. Meditational training helps us to become conscious of the way we interpret our experience from moment to moment (de Wit, 2003). We become more aware of the actual experiences, as well as the thoughts which are accompanying them and the influence these thoughts have on our behaviour and on our relationships with other people and thus also on the behaviour of these other people[10]. This is called the 'faculty of mental distinction'. It is the mental ability to survey and have insight in the interdependence of phenomena (mental as well as perceptual phenomena) which are occurring in the stream of experience (de Wit, 2003). This 'faculty of mental distinction' helps us see the effect of our interpretations on our experience of reality (de Wit, 2003). It is also making us more able to be aware of our own participating influence in creating our reality. In Mahamoudra meditation there are many techniques by which one learns to see that the mind is creating these relative realities (Traleg Rinpoche, 2004b).

Usually (for an untrained mind) the faculty of distinction is making use of labels, language (Komito, 1987). After extensive training this is considered to be possible without the interference of language (Komito, 1987). This is also an idea which is totally new to cognitive psychology and psychoanalysis. For them the main characteristic of human consciousness is that direct perceptual thinking is coupled to

[10] This mechanism is known in mainstream psychology as the mechanism of the self-fulfilling prophecy.

words (Verhaeghe, 2002) or to representations (Anderson, 1995). According to the Dalai Lama (2002) the misleading thoughts and concepts which are running after the objects of our perception is not the inherent nature of our mind but they are like waves which obscure the true nature of our mind. This idea is rather alien to cognitive psychology and psychoanalysis, which are seeing these cognitive, conceptual, symbolical representations as the funding structure of the human psyche. According to the Dalai Lama (2002), however, if we can tie up these levels of the mind, which are confused in thoughts and concepts, we will have access to the fundamental state of mind, which is said to be illuminating like the clarity of light. This refers to a non-conceptual way of knowing which is leading to happiness instead of suffering. In order to understand this latter aspect of Buddhism, ecological psychology as underlying our new concepts (worked out in chapter 2 of part II) will prove very useful (see part III chapter 2).

In Buddhist meditation it is not about either becoming unconscious or either incorporating new *ideas* about being human. It is about making us conscious of the way we interpret and not about exchanging our former interpretations with new ones (de Wit, 2003). Because of seeing the influence of our fixation on conceptualised experience, it loses its driving power (de Wit, 2000). And from the moment we recognize the relativity of reality and don't mistake it any longer for an ultimate reality (cf. 'perceptual confusion'), we are said to live in an ultimate reality (de Wit, 2003). By taking away, what is according the Buddhism the cause of unhappiness, people's beliefs in a self-created reality and the ignorance for their own implication in this, we can come to a way of experiencing which is not in the grip of conceptuality (de Wit, 1998).

3.3 Conclusion

In the above we showed how Buddhism can be seen as a complementary theory to Western theories, yet also a totally different theory. Buddhist psychology touches aspects of cognitive psychology as well as aspects of ecological psychology, without seeing these as contradictive within the theory, but seeing them as *contrasting aspects within human experience*. Just like in Western psychology we find differences and debates, these can also be found between different Buddhist psychological traditions. There has been a lot of debate in Western psychology and philosophy as well as in Buddhist psychology and philosophy about whether human beings do or don't have direct access to reality. In some Western theories it was claimed that human beings can by definition not have any direct access to reality, because of their mental structures. We can find these ideas in the main trends of cognitive psychology as well as in psychoanalysis. This was strongly contested and even rejected in ecological psychology which developed an alternative theory about the human being in his environment and perception. In Buddhist systems we find different opinions. Some systems, like the Sautrantika system do leave the possibility open that an untrained person could have direct perception. Other systems like Nagarjuna's Madhyamika philosophy, claim that having direct access to reality is impossible. There is always an objective as well as a subjective aspect involved. The Madhyamika system however makes two exceptions. A child which doesn't know language and a trained mind, do have direct and unmediated access to reality. All Buddhist systems, however agree on the fact that direct perception can be cultivated in different ways through meditation.

In chapter 2 we have filtered out the cognitive influences in our concepts of religion studies, because we didn't want our study of Buddhism to be biased by age-old Western cultural presumptions, which we traced back to the origin of science and Descartes and even before that, when Christianity was still having hegemonic influence in intellectual life. Cognitive schemata in symbolical or conceptual forms are central in cognitive psychology. Ecological psychology will come in very handy in studying those aspects of Buddhism beyond conceptuality. Even if Buddhist theory about perception seems to come closer to cognitive psychology in recognizing the mixing of subjective ('conceptual consciousness') and objective elements ('perceptual consciousnesses') in perception, ecological psychology will be useful in our study of Buddhism since an important aspect of Buddhism is the cultivation of direct perception. To justify the use of concepts, influenced by ecological psychology in studying Buddhism, we elaborated on these meditational methods and the way they are situated within Buddhist psychological theory of perception, namely to cut through conceptual frameworks.

Here we also bump into an important difference between Buddhism and Western science, namely that Buddhism is not only interested in abstract theories in order to find out the truth about reality. The theory doesn't stand on itself as something we can get to know, but is meant to create an effect in the lives of human beings. Happiness.

Part III: TAKING A SECOND LOOK AT BUDDHISM

In part I we showed the shortcomings and problems in some concepts in religion studies to study Buddhism. We identified the underlying problem to be the limits of the cognitive paradigm within which these concepts were formulated. In part II we have uncovered this cognitive paradigm in these concepts and proposed new concepts, using Smith's concepts and ecological psychology as a starting point. We have contrasted cognitive and ecological psychology without devaluing one over the other. We chose ecological psychology as a starting point for our concepts in studying Buddhism (chapter 2 of part II), because it can contain the relational aspect of a living tradition and the non-conceptual learning processes inherent in Buddhism. There is a lot of debate between cognitive and ecological psychology about whether perception is mediated or not. In Buddhist psychology (chapter 3 of part II) both direct and mediated perception are recognized as possibilities but very different possible ways of perceiving of human beings. We discussed how this Buddhist theory is placed in the Buddhist project of overcoming suffering and how meditation is related to this.

In part III, we want to apply the concepts worked out in chapter 2 of part II to Buddhism. We will conceptualise Buddhist tradition as a learning environment (chapter 1). In chapter 2 we will conceptualise meditation as an education of the attention and discuss the 9 stages of Shamatha meditation as the heart of this thesis. Here we will show how meditation can be seen as a fine-tuning of the attention and the creation of a new 'learning environment' in the mind as well as the development of a fine-tuned instrument for investigating the mind. In chapter 3 we will elaborate on the shamatha mind as a new 'learning environment' and a 'technology' through which the mind can be further investigated. By using these concepts in taking a second look at Buddhism, we will have a totally different outlook on Buddhism, than the image the comparative religion studies presented to us of Buddhism, namely as a religion, 'belief system' or worldview. Suddenly Buddhism appears to us as a cultivation and a systematic investigation of the mind. This raises the question whether Western science of mind could learn something from this century-long Buddhist investigation of the mind. In part IV we will discuss how Buddhist psychology and meditation has inspired Western psychology and neuroscience and in part V we will have a meta-discussion on the position Buddhist knowledge and practices can have in the 'scientific' study of the mind.

Buddhism is a name which covers many traditions, in many different countries. Some traditions focus on some particular practices, while others emphasise other practices. Therefore it is impossible to include all these in this article. This would make it too general. We don't want to give a general overview, but want to give an idea of Buddhism in practice. We will focus especially on Tibetan Buddhism since that is the branch of Buddhism I am acquainted with. Tibetan Buddhism came over from India and now consists of three main branches: the Gelug pa, the Kagyu pa and the Sakya pa branch. Even if these branches differ from each other in their focuses on certain practices, they are seen as compatible and also respect each other's practices and theories. Teachers from the different branches of Tibetan Buddhism will further guide us on this journey.

1 Buddhist tradition as 'learning environment'

In chapter 1 we will discuss how the starting point of Buddhism is suffering. The cause of suffering is that the mind is obscured by conceptual consciousness (as we discussed elaborately in chapter 3 of part II). The Buddha discovered how the true nature of mind is the Buddha-nature. Buddhism as a learning environment offers a framework which should help people to uncover or to discover this true nature of the mind. Suffering and happiness are seen as the results of a network of causes and patterns of co-dependent arising of phenomena. The experience of reality is a very important aspect in this and is considered depend on the world *and* our own mind. Ignorance as a cause of suffering lies in the mechanisms of the mind to fixate on conceptual ideas in our heads (for example the 'self') rather than staying open and being aware to an ever-changing reality and the interrelatedness of phenomena (for example the nature of the mind). Suffering is inherently related to conceptualized experience of reality. Buddhism as a learning tradition offers a set of teachings, techniques, instruments, skills, rituals, deity's, ... to purify the mind of those clouds which temporarily obscure the true nature of the mind. Perception is a skill that can be improved by meditation.

Buddhist teachings and practices aim at 'mind training'. This refers to different interrelated meanings such as training, habituation, cultivation and cleansing. All these meanings carry 'transformation' in them. We will discuss three main trainings: ethical, attentional and wisdom training. Symbols such as the visualisation of Buddha-deity's are conceptualised as means to cultivate the positive qualities inherent in the true nature of the mind. The dharma is not present in the Buddhist theories or books. Dharma is something the Buddha discovered in his mind. It was put into words because he started to teach about it to help people overcome their suffering. Words are only the instruments passed on to help people discover the dharma for themselves. It is about a learning process or transformation process in which the whole person, his body, mind, heart and perceptual systems are included. Buddhist tradition creates the conditions for this learning, passing on learning tools and creating a learning environment through which the person can discover for himself what the Buddha referred to.

The oral transmission and the embodiment of the dharma by teachers and students is very important in this learning environment. Books cannot replace the relational dimension and the beating heart of this tradition. The unbroken oral transmission and the transmission of the dharma in the experiences of Buddhists, is what makes it into a 'warm' tradition. We can distinguish between different kinds of teachers and different kinds of students in Buddhism. If students are interested in Buddhism as a way of developing oneself, they need a dharma-instructor who knows the positive qualities of the true nature of the mind from his own experience in order to be able to point towards these in the lives of the students. The personal contact with the dharma is made within this personal relationship between student and teacher. The teacher must be able to touch the heart of the student and give him the courage and power to let go of his limited points of view. He will give personal instructions, suitable for that student in that phase of his life. This way the student will gradually get in touch with that reality in himself. Finally the mind of the student will become his own mentor.

In this way Buddhism is laying out a path which is to be traversed. Buddhism as a living tradition provides the direction while one is walking the path. The mentor functions as a guide in unknown territory. The travel instructions don't reach further than that point which lies just in front of us. The instructions are not meant to describe the road or the experiences, but to transform the listener. Some instructions only reveal their meaning, once a certain point has been reached. The key in understanding them lies in the personal traversing of the road.

A person can do many different things with Buddhism. For example the relationship with a mentor can receive symbolical meaning within the conceptual framework of the basic phantasm (or cognitive schema) of someone with a borderline personality structure. Buddhism, however, aims at breaking through these conceptual frameworks and the discovery of the true nature of the mind. However, all these different aspects in Buddhist experiences must be included if we want to study Buddhism. Meditation aims at developing a clarity of mind, reaching a way of experiencing which is less obscured by conceptuality and leads to a more direct perception. The training of the attention is important in this. Because of the training of the 'faculty of distinction', one learns to recognize the interplay between direct perception and conceptuality in the creation of our experience. The mentor provides the individual meditation instructions orally. The kind of knowledge this generates is knowledge that cannot be passed on through words. The novice discovers this knowledge for himself through his immediate experience.

In this chapter we will listen to what well-respected Buddhists tell us about Buddhism. The Dalai Lama (also sometimes referred to as Tenzin Gyatso) is the head of the Gelug pa branch of Tibetan Buddhism and received an extensive theoretical and practical education in Buddhism since childhood. Rangdjoeng Dorje Karmapa III was an important lineage-holder of the Kagyu pa tradition in the fourteenth century. Tsong-Kha-Pa was a very influential teacher and practitioner in Tibetan Buddhism. Traleg Rinpoche is an important teacher in the Kagyu pa branch of Buddhism. Sogyal Rinpoche and Geshe Sonam Gyatso are also authorized teachers in Tibetan Buddhism. Next to them, we will use many other Buddhist authors. Thupten Jinpa for example is a Buddhist who also has a scientific interest in Buddhism. Furthermore we will use some Western authors such as Alan Wallace, Francisco Varela, Han de Wit, who had extensive training in Tibetan Buddhism, who are authorized teachers and are also scientists studying Buddhism from a scientific point of view. We will also use other Western authors who extensively studied Buddhism such as Batchelor, Hagen and Cabezon.

1.1 Buddha's teachings as a 'means to discovery'

1.1.1 Suffering and interdependent arising

It is said that Buddhism has found its roots in the life of prince Siddhartha who decided to give up his happy princely life, at the moment when he got confronted with the suffering of people. As a consequence of this confrontation, he devoted his life to discovering a way to overcome suffering. The dissatisfactory mode of existence is thus an important starting point in Buddhism (Dalai Lama, 1997). The Buddha had discovered through his practice that suffering was a result of the mind being obscured. In chapter 3 of part II we extensively discussed this theory on perception and the obscuration of the mind by conceptual layers. The fundamental

nature of the unobscured mind is the Buddha-nature (Dalai Lama, 1997). As we discussed earlier in part I, we cannot study Buddhism, Buddhists and Buddhist experiences from an underlying view on the human being as *homo symbolicus* since that would only include the conceptual aspects of Buddhism, while Buddhism exactly aims beyond that. Even if conceptuality is also important in the Buddhist tradition, non-conceptuality deserves an important place in the study of Buddhism. With the new concepts we discussed in part II we are able to include all these aspects in our study of Buddhism (see chapter 2 of part III).

Buddhism is a teaching about what the Buddha had discovered to be the true nature of the mind. It is difficult to find descriptions of what is exactly meant by this true nature, because that nature is supposed to exactly transcend the conceptual mind by which we try to describe things (Sogyal Rinpoche, 1992). Therefore the conventions which are created by the conceptual consciousness will not be able to describe them (Dalai Lama, 2002). It does not fall into any kind of category (Sogyal Rinpoche, 1992). “Nothing can describe it as being that. Nothing can describe it as being not-that.” (Rangdjoeng Dorje Karmapa III, 14e A.C.: p. 8). To talk of this nature of mind is only a metaphor that should help to imagine its all-embracing boundlessness (Sogyal Rinpoche, 1992). According to Sogyal Rinpoche (1992) it is difficult to imagine that enlightenment is the real nature of our mind because it plays no role in popular culture. Modern culture doesn’t create a context or framework in which to comprehend the glimpses people are said to sometimes do have of this true nature of mind[11].

Buddhism is offering a framework which should help people to overcome the obscured mind as a source of suffering and to uncover the true nature of the mind. The concept of learning tradition as a learning environment which helps the Buddhist subject to discover something for himself, which is not present in the tradition standing on its own, is very useful in this context. It is in the relation between subject and tradition, that ‘something else’ can be discovered. By studying Buddhism as a tradition in itself, we would not see this something else. It is in studying the activity of Buddhist subjects and what effect the interaction with the tradition (for example: the practice of meditation, or the burning of candles in front of a Buddha-statue) has on them, that we can see the learning processes or processes of change they actively initiate in themselves.

The Buddha has challenged people to understand what suffering is, what the cause of suffering is and to let go of that cause of suffering. He has challenged people to make an end to suffering by developing a certain way of life (Batchelor, 1997) which would lead them to enlightenment. This is what the theory of the four noble truths,

[11] According to Sogyal Rinpoche (1992) even the idea of meditation or hearing the words ‘egoless’ or ‘emptiness’ is scaring people. They think experiencing those states will be like being thrown out of the door of a spaceship to float forever in a dark, chilling void.

which is central to the Buddha's teaching, is about (de Wit, 1998). It is about the causal associations of happiness and suffering (de Wit, 1998). We should understand this causality in terms of the systematic relations in which they are embedded and the patterns of dependence upon which they arise (Waldron, 2002). This focuses our attention upon patterns of arising rather than on actions or agents (Waldron, 2002). The theory of 'dependent arising' makes us think of the world and ourselves in terms of patterns of relationships, rather than of reified essences or entities (Waldron, 2002). It dispenses the notion of fixed entities or unchanging essences altogether (Waldron, 2002). Phenomena (such as the self, suffering, happiness, tradition, or anything else) only appear as if they bear their own inherent existence, independently of the conceptual frameworks within which they are apprehended, but nothing as such has an independent existence (Wallace, 2001). The world, ourselves, our experience, any phenomenon is a result of a field of relationships on which they are dependent for their arising.

All phenomena are dependent upon: the causes and conditions that gave rise to them, their own parts and attributes and the conceptual imputations by which they are demarcated (Wallace, 2001). The very absence of an inherent identity (standing in itself, independent of other phenomena) of any phenomenon is called 'emptiness' (Wallace, 2001). Our experience of reality is dependent on the world, but also on our mind and what our mind makes of the world. The world and perceiver influence each other[12] (Varela *et al.*, 1993). The human being perceives not only the world, but has an influence in creating this world and his perception of the world is also dependent on his own mind and the state of his mind. As we discussed earlier in chapter three of part II, it is a fundamental characteristic of the conceptual mind to interpret things almost similarly to the moment of perception itself (Tolle, 1999). Through our interpretation, we build up an image of ourselves and the world and we think reality equals these conceptual ideas in our heads. We don't see the world and ourselves as a field of relationship, as interdependently arising. Instead we reify the existence of ourselves, the world, the other, ... while in reality they are constantly moving and influencing each other. That is why in the texts, it is said that all phenomena are projections of the mind (Rangdjoeng Dorje Karmapa III, 14e A.C.: p. 7 bis). Because of the habit of the mind to fixate on concepts, the mind becomes temporarily obscured by thoughts. This is the cause of suffering (Rangdjoeng Dorje Karmapa III, 14e A.C.: p. 6). Because the mind is obscured, it is ignorant of interrelatedness and impermanence of the ultimate reality of phenomena, but reifies phenomena to have an inherent existence of their own. The root of all problems is this ignorance, like for example the belief in an existing self (Tenzin Gyatso, 1984). We have to give up these causes of suffering and cultivate those causes of happiness (Tenzin Gyatso, 1984). One can only reach this by spiritual practice (Tenzin Gyatso, 1984).

[12] This theory comes close to Ingold's conception as the world and the person as a field of relationships and his inspiration from Heidegger who states that the self and the world merge in the activity of dwelling.

In Tibetan we call this mind which is temporarily obscured by thoughts and dualistic perceptions of objects and subjects: 'sem' (Dalai lama, 2002). The Tibetan word 'Rigpa' in contrast to 'sem', refers to pure awareness of phenomena, free of thoughts which obscure the reality of phenomena (Dalai Lama, 2002). The true nature of the mind is hidden in our own mind, just as clouds can be shifted by a strong gust of wind to reveal the shining sun and wide-open sky (Sogyal Rinpoche, 1992). So the true nature of the mind is found in the midst of these conceptual frameworks we build about the self, the world, ... these thoughts which are imputed on the objects of perception, which are obscuring our view of reality with a veil of ignorance. In Buddhism it is claimed to be possible to transcend this conceptual mind, purify the mind of incidental thought patterns, and come face to face with the true nature of the mind.

In the ordinary mind, we perceive the stream of thoughts as continuous, but in reality this is not the case (Sogyal Rinpoche, 1992). In reality there is a gap between each thought. So under certain special circumstances, some inspiration may uncover for us glimpses of this nature of mind. Sogyal Rinpoche (1992) describes this gap as a sheer immediate awareness of the present, fresh, virgin, free of any clinging, simple, naked, unaltered by even a hair's breath of concept, and a fundamental radiant clarity of awareness. According to him, that naked simplicity was also radiant with the warmth of immense compassion. As long as we haven't realized this true nature of mind, we will be trapped in our existence of suffering (Rangdjoeng Dorje Karmapa III, 14^{e} A.C.: p. 8 bis). Thoughts and conceptual frameworks are all that block us from always being simply in the absolute (Sogyal Rinpoche, 1992). However uncovering this nature of Rigpa is not the goal in Buddhism. Staying in the ground of 'Rigpa', without getting attached to thoughts, is considered only the base for Nirvana (Dalai Lama, 2002).

We don't have to passively wait for such a special circumstance to occur, which will reveal 'Rigpa' to us. The Buddhist tradition as learning tradition contains a whole system of instruments, methods, practices, skills, teachings, rituals, deity's, which are supposed to help Buddhists to discover the true nature of their minds. This applies for the basic exercises like shamatha and vipassana meditation, but as we will see below also for the more advanced ritualistic tantra meditations. We can dissolve those conceptual frameworks by meditation.

The 'self' as an obscurer of the true nature of the mind

The self in this theory of 'dependent arising' is neither seen as an enduring entity (Waldron, 2002). It is also a result of interdependent processes (Dalai Lama, 2002). The teaching that beings are empty of a self, doesn't mean that there is no subjective 'I', but that there is no inherently existing person, independent of anything else, to which the concept 'I' could refer. There is only the idea of a self, which is being put on phenomena as a label (Komito, 1987). The self is brought into existence by the power of conceptual imputation (Wallace, 2001). This conceptual imputation of 'self' stands far off from what we ultimately are (Epstein, 1995). The fact that we truly believe in a self and take this for reality, is also what is meant by ignorance (Komito, 1987). The mind is obscured by the veils of conceptual frameworks like 'the self' and is therefore ignorant for the constantly interdependent arising of phenomena. Clinging to a permanent self-feeling is what is leading us to negative mental states and suffering (Traleg Rinpoche, 2004).

The antidote of ignorance is to gain insight in the interdependent existence, or emptiness of the self (Komito, 1987). The way towards liberation of suffering is said to pass through letting go of these wrong ideas about who we think we are (Wallace, 1993). Therefore it is not enough to just *believe* that there is no self (Dalai Lama, 2002). To overcome the illusions created by the conceptual mind, it is not enough to understand the interdependent arising of phenomena (ourself, the world, etc.) in a conceptual way. We need to investigate the self and analyse it, not only by thinking about it, but also in a non-conceptual way, without making use of words (Geshe Sonam Gyaltsen, 2000). It is only through meditation that one is believed to be able to undertake the journey to discover one's true nature (Sogyal Rinpoche, 1992).

Rangdjoeng Dorje Karmapa III (14e A.C.: p. 6 bis) describes this as three ways of knowledge. First one is studying the texts to liberate oneself from not-knowing, followed by thinking about the instructions to conquer one's doubts. But finally only the light of meditation clarifies the true nature of the mind. Meditation is said to be the way to bring us back to ourselves, where we can experience and taste our full being (Sogyal Rinpoche, 1992). Meditation is said to awaken in us the sky-like nature of mind (Sogyal Rinpoche, 1992). To realise the absence of an intrinsic existing self in this non-conceptual understanding is said to have a transforming effect on the mind (Wallace, 1993). Someone who has reached such a non-conceptual insight is called an Arya (Wallace, 1993). So studying the Buddhist as a *homo symbolicus* (as in Smart and Wiebe's methodology) cannot include these aspects of Buddhism. The Arya is said to remove these points of view of inherent existence on the path of meditation (Komito, 1987). When these are removed one is said to have reached 'the path of no more learning' or Buddha-hood (Komito, 1987). At this point there is no longer a distinction between the state of mind during meditation and in post-meditation time (Komito, 1987).

1.1.2 Training the mind

According to the Buddhist teachings, suffering and ignorance are inherently connected with conceptualized experience of reality (de Wit, 1998). Those processes underlying the flow of human experience are not psychological absolutes (Pickering, 1995). As we discussed earlier (chapter 3, part II), according to Buddhism, perception is a skill that can be improved by meditation. When we learn to see through our blinding misperception we can become enlightened (Thurman, 1999). The Buddhist project is a systematic attempt to discover the true nature of reality and the mind (Thurman, 1999). Buddhist practice aims at becoming more skilled in managing human mental life, resulting in a more satisfactory life (Pickering, 1995). We can see Buddhist traditions in this respect as learning traditions. Walking the path of the Buddha means to cultivate a mental transformation, to discover and cultivate a way of living (de Wit, 1998). This goes a lot further than studying Buddhist texts and holding Buddhist convictions in one's head (de Wit, 1998). Smart and Wiebe wanted to study religions as the convictions people have, the human being as *homo symbolicus*. This would clearly be a reductive way to study Buddhism. An extensive training of the whole person is involved and his way of life is affected by the Buddhist tradition. So studying Buddhism as a 'tradition' standing apart from the experiences of Buddhist subjects (cf. Smart and Wiebe) will not include all aspects of Buddhism.

Mind training or 'Lojong' refers to a specific approach which entails the transformation of the self-centeredness into an other-centered altruism, however all the teachings of the Buddha and their associated commentaries can be characterized as mind training (Shönu Gyalchok & Könchok Gyaltsen, 2006). 'Lo' refers to the mind, thoughts, attitudes, while 'Jong' has several interrelated but distinct meanings, such as training, habituation, cultivation and cleansing (Shönu Gyalchok *et al.*, 2006). This refers to training, in the sense of acquiring a skill or mastering a field of knowledge (Shönu Gyalchok *et al.*, 2006). Habituation refers to a familiarization with specific ways of being and thinking and cultivation refers to cultivating specific mental qualities, such as universal compassion and the awakening mind. Cleansing refers to purifying one's mind of craving, hatred and delusion (Shönu Gyalchok *et al.*, 2006). All these different meanings carry the salient idea of transformation, whereby a process of training, habituation, cultivation and cleansing induces a profound transformation from the ordinary deluded state to a fundamentally changed perspective of enlightenment (Shönu Gyalchok *et al.*, 2006). We will conceptualise this transformation as a specific kind of learning process or process of change. We can categorize all the Buddhist techniques in three trainings, which are interconnected with each other: ethical discipline, concentration and wisdom (Tsong-Kha-Pa, 2000; Wallace, 2006b). We will discuss these three trainings below. Wisdom training must be supported by a high degree of attentional balance (i.e. concentration training) and this requires systematic training (Wallace, 2006b) (for example with Shamatha meditation, which we will discuss in chapter 2 of part III). The fundamental basis for this training however is an ethical lifestyle (the first training).

In the present psychological interest in Buddhism, we tend to de-emphasize the importance of ethical training, all our interest tends to go to meditation techniques to cultivate attention and insight. But ethical training, in Buddhism, is considered to be the base for the development of concentration and mental stability through meditation. Without ethical training, the cultivation of these skills is considered impossible. Without ethics one cannot succeed in training the attention to a high degree of concentration (Wallace, 2006a). The cultivation of compassion and friendliness as skills are very important in Buddhism (Cabezon, 1988). In Buddhism we know many different techniques for the cultivation and training of compassion and loving kindness (Tenzin Gyatso, 1984). Compassion or loving kindness are not so much the objects of meditation, rather the person seeks to cultivate these qualities (Thupten Jinpa, s.d.). In the Mahayana and Vajrayana path, the Buddhist has even made the bodhisattva-vow, in which he promises to become enlightened, not for the sake of his own happiness, but in order to free all sentient beings from suffering, which is a rather ambitious project of course. The sutra's contain the fundamental teachings of the Buddha about the methods to develop these positive qualities, such as moral self-discipline, compassion, but also concentration (the second training), the understanding of emptiness (the third training) and the cultivation of the Buddha-nature (Berzin, 2000). These meditative practices for cultivating concentration and understanding emptiness are, in their turn again having a progressive influence in cultivating experiences of compassion, empathy, and altruism (Kristeller, 2005).

To clarify the meaning of the sutra's, Indian and Tibetan masters collected comments and subcomments (Berzin, 2000). The Tibetans also archived summaries, books on logic and systematic comparative presentations of Indian schools about their philosophical statements (Berzin, 2000). However all these texts are considered

as no more than study aids. So if we want to study Buddhism as a tradition we inherently have to study the interrelation between this tradition as a collection of study aids in relation to Buddhist subjects and the way these aids are used in the lives of these subjects and the effects they elicit. In order to reach certain understandings or realisations, students need directions from spiritual masters. One cannot just learn this matter through reading the texts (Berzin, 2000). Buddhism as a 'tradition', includes the embodiment of the 'dharma' in those teachers as a 'learning environment'. This relational aspect of 'tradition' is very important in living Buddhism and was overlooked by Smart and Wiebe's interpretation of Smith's concept 'tradition'.

It is generally accepted that there are three different phases to this learning process: listening or reading, achieving insight, contemplation (Balagangadhara, 2005). First, the practitioner develops wisdom by hearing the teachings, then by thinking it through and later by meditating on it (Tenzin Gyatso, 1984). Each phase consists of another level of understanding. We first hear or read about the teachings. Here our understanding sticks close to the words themselves. Then one is playing with the material, making it one's one understanding, analysing and questioning it, testing it into one's own life, etc. One then contemplates the insights achieved and observes its impact on experience (Balagangadhara, 2005). To do so, one has to learn new skills other than the *cognitive skills* one used in the previous phase (Balagangadhara, 2005, my italics). And it is especially in this latter kind of understanding that cognitive psychology falls short. This is where the meditative techniques come in: it is about the ability to think without thinking about. (Balagangadhara, 2005).

When speaking of meditation in the contemporary cultural context, we often forget that meditation is actually an English term (Thupten Jinpa, s.d.). In the classical Buddhist context the term meditation is used to translate the Sanskrit term 'bhavana' or the Tibetan equivalent 'gom' (Thupten Jinpa, s.d.). The Sanskrit term etymologically connotes the notion of cultivation, while its Tibetan equivalent 'gom' carries the idea of developing familiarity (Thupten Jinpa, s.d.). Together they imply the idea of some kind of repetitive process of cultivating familiarity, whether it is with respect to a habit, a way of seeing or a way of being (Thupten Jinpa, s.d.). There are different types of meditation in which one is training in ethics, concentration or wisdom, such as meditations which make use of visualizations, or praying for the welfare of countless sentient beings (Thupten Jinpa, s.d.). So the Tibetan word for meditation 'gom' refers to cultivation, visualization, aspiration, reflection, meditation and so on, dependent of the contexts (Thupten Jinpa, s.d.). Understanding this diversity of meditation practices and their associated states is crucial, if we want to avoid the temptation of viewing meditation as constituting some kind of homogenous mental state, characterized primarily by absence of thought (Thupten Jinpa, s.d.).

The second training is absorptive meditation or 'jog 'sgoms', with tranquil abiding of the mind (shamatha or 'zhi gnas') as its epitome. Here, we train the mind in order to reach a mind characterized by stability and clarity, which is necessary for the third training, where we contemplate on our insights in a meditative way in order to gain wisdom. The third training is discursive meditation or 'dpyad sgoms' of which the epitome is insight (vipassana or 'lhag mthong') (Thupten Jinpa, s.d.). The training of mental stability and clarity however is a very extensive training, which demands a lot of effort, patience and endurance. It needs to be practiced daily, which is asking a big investment in one's life. Shamatha meditation, is one example, used to calm the

mind down and to stabilize the mind (de Wit, 2003). In this meditation one uses mindfulness and awareness to reach these results. We will come back to this extensively in chapter 2 of part III.

In the classic mindfulness meditation (during the first phases of shamatha), the individual learns to pay deep attention to the minute processes within the flow of his breath or a mental processes as objects of meditation, while remaining undistracted by other sensory or thought processes (Thupten Jinpa, s.d.). The result is that we are able to keep the mind where we want it to and concentrate on that point. There are different phases which one is going through when practicing shamatha meditation. In the later phases of shamatha, the mind is also developing a certain clarity. Which in turn is than used and further cultivated in insight meditation and the cultivation of wisdom (vipassana). The training during meditation practice also has its effects in the lives of people. The goal of mindfulness-awareness training is not to retreat from the world towards the meditation cushion. It is supposed to enable the mind to be fully present in the world (Varela *et al.*, 1993) instead of being locked up in a head, surrounded by its mental models and psychic environment, disconnected from the world. Usually we are not connected with our present actions at the present moment, but we think about something else, for example, about what we are going to do next (Wallace, 1993). Our mind is jumping from one thing to another (Wallace, 1993). Meditation brings the mind back to the 'here and now' and pulls it out of this network or stream of thoughts and imaginations. It is through the practice of meditation that we educate the attention in this specific way. This training has an influence on the quality of our attention in post-meditation time. The goal is not to avoid action, but to be fully present in one's actions, so that one's behaviour becomes progressively more responsive to and aware of the world (Varela *et al.*, 1993). We become an embodied mind instead of a disconnected mind.

The tantra's contain the more advanced methods as additions to the sutra-teachings, with the aim to get to enlightenement in a faster and more efficient way (Berzin, 2000). Tantra-yana or Vajrayana Buddhism originated in India from the fourth century and spread all over the Buddhist world (de Wit, 1998). From the seventh century on, Vajrayana Buddhism was carried to Tibet over a period of about four hundred years (Klein, 1998). The Hinayana, Mahayana and Vajrayana teachings are not contradicting each other, the boddhisatva (Mahayana path) still must practice the teachings found in Hinayana scriptures (Tsong-Kha-Pa, 2000). Furthermore the Vajrayana tantric practices rely on, rather than negate the Mahayana teachings (Tsong-Kha-Pa, 2000). The methods within Vajrayana typically involve the imagination to transform the image a person has of himself into an image of a certain Buddha or deity which represents certain qualities of the mind, or the enlightened state of the mind (de Wit, 1998). For example the deity 'Tchenrezig' represents the compassionate aspect as, what is according to Buddhism the fundamental nature of the human mind. Like this there are many different deities, yidams and buddha's which are all representing certain experiential aspects of the true nature or the vajra-nature of the mind (de Wit, 1998). In these meditations, the ordinary perception and points of view are left behind and one is identifying oneself with one of the images, which are representing the pure and perfect aspects of our own mind (Dalai Lama, 1997).

We could say that these visualisations are as much a self-created reality, as our own relative reality. But this is said not to be true. Our relative reality is one we created

ourselves, while these visualisations are considered to represents the absolute reality of our mind and are designed to bring us closer to those aspects within ourselves. The experience of the tantric meditation is withdrawing the person from his relative reality, the world as we think it is, and as we are mostly misconceiving it (de Wit, 1998) and it brings us in touch with fundamental positive qualities of the mind such as compassion, clarity and so on, dependent on the kind of meditation and the yidam used. The elaborately structured visualisations are precisely supposed to elicit certain kinds of experiences (Gyatso, 1999). The rituals surrounding it are meant to help the students not only to see themselves as the appropriate Buddha or enlightened deity, but also to have its experiences and realizations and to further cultivate these within oneself (Gyatso, 1999). The Vajrayana vehicle is containing an enormous variety of meditational techniques and is therefore sometimes also called the upaya-yana (de Wit, 1998). Upaya-yana means the path which contains the means or the instruments. Our conceptualisation of 'tradition' as a collection of means or instruments fits very well to these data.

1.1.3 The role of symbols

In part II (chapter 2) we discussed how we shouldn't look at symbols of a tradition and the meaning of them. We discussed how symbols are tools, which receive meaning, only when related and used by the practitioner and the effects (i.e. learning processes) they elicit in his life. Symbols such as Buddha images or visualisations, don't just represent certain 'Gods' one has to worship or respect. They don't carry meaning in themselves and we should believe in their existence. Whether they exist or not, is not the point in Buddhism. Their truth lies in what experiences they elicit in the person while practicing the tantric meditations, or while burning a candle in front of a Buddha-image. In Chinese Buddhism, for example, the compassionate aspect of the mind (known as Tchenrezig in Tibetan Buddhism) is represented by the statue of Guan Yin (Chin Kung, 1989). This statue is a means designed to help people remember to apply compassion when dealing with the world (Chin Kung, 1989). In Buddhism it is believed we have infinite capabilities within our true nature of mind and this cannot be expressed by just one single term, therefore there are developed different statues as teaching aids, which represent our nature and are instruments for the cultivation of virtue (Chin Kung, 1989). The statue doesn't just carry the meaning of 'compassion' in itself. It is meant to elicit compassion within the person burning a candle in front of it, or paying respect to it. The symbols here are instruments to facilitate a certain learning process in the person himself.

For example if one reads a story about a certain yogi who lived hundreds of years ago, the truth doesn't lie in the story, whether it was truly possible that Milarepa, could for example fly. The signification lies in the experience the reading of the story elicits in the reader. For example one can read the book and judge it to be "entirely superstitious and not meant for a rational person to believe in that kind of shit". Or one can be touched by the love and compassion Milarepa presented in his life towards all sentient beings. The story is meant to bring to life something in the reader which is transferred through the tradition, but which the person is supposed to rediscover for himself, using the tools of the tradition, the story in this example. The tradition is not only about intellectual understanding of certain insights or theories, or even a meditative kind of understanding. It is about transferring the *beating heart* of the tradition. It makes the tradition alive in the person his

experience and his life, for example while reading Milarepa's life story. In this way, the tradition becomes part of the person and the person becomes part of the tradition.

Also the execution of rituals are supposed to create a connection with the tradition, because one is practicing it with other students and is doing the same rituals as many generations have done in the past (Berzin, 2000). It is not only through the stories, Buddhists know the effects these rituals and meditations have had on their ancestors, but also because of the behaviour and attitude of the more experienced practitioners and because the experiences they have through doing those same practices themselves and recognizing glimpses of what those ancestors had reached or what their current teachers have reached. The Buddhist tradition is acted out in the life and experience of the person and is not a body of knowledge standing in itself. The person and his experience are part of the tradition and cannot be seen separate from the tradition. This relational aspect should not be overlooked.

What is passed on, in the tradition, through the symbols is more than only the symbols. They are like gates, windows, tools, instruments, means by which the Buddhist has access to 'something else' than the symbol. Therefore symbols shouldn't be studied in themselves, when we study Buddhism. We should study what experiences and changes symbols bring in the lives of people, because what is transferred is not about the texts. The texts, rituals, meditation techniques, etc. are means to learn something transcending the texts, to use Smith's words. The dharma is about something which was present in the mind of the Buddha and which has received words, because he started to teach about it, to help other people overcome suffering (de Wit, 2005). The Buddha had reached a certain state of mind, while trying to find a solution for the suffering of all the people. He finally decided to teach about this, in order to help people. What he had discovered, however is not present in the words themselves. The words are the means, by which the people can try to discover the dharma for themselves. It took a few centuries before the Buddha's words had been put into written texts. Those texts are only the words of a certain view and aren't the view in itself. The dharma is a means to get to that view (de Wit, 1998). The teachings of the dharma, therefore aren't comparable to other teachings, for example at secondary school. They are not about some kind of truth, which we should accept. Following teachings of dharma is about awakening something within ourselves, which cannot be put into words or reduced to concepts. It is about something the words point to (Hagen, 2003). It is another way of learning than encyclopaedic knowledge which we can store in our heads. Therefore the Sanskrit word 'upaya' is often used, to indicate that it is about a means or instruments, not the goal. The dharma is an instrument to communicate a certain mode of being, an awakened perspective and attitude in life (de Wit, 2005).

'Guided rediscovery'

This corresponds to our ecological view on traditions, in which we see symbols not as carrying meaning in the statements or theories themselves, but in the effects or the learning processes elicited by them in the lives of the people. For Gibson (1979) words don't carry information in themselves. They are teaching devices which aid in perception and that is where the information lies, in what can be perceived. This learning process shouldn't be seen as people who learn certain theories about emptiness or perception. It is not a learning process by which only words are passed

on. It is about *a learning process in which the whole person, his body, mind, heart and perceptual systems are involved, which relate him to his social, physical and psychological environment.* The Buddhist tradition only creates the conditions for this learning, passing on learning tools and creating a 'learning environment' through which the person can discover for himself what the Buddha has taught. It is a process of 'guided rediscovery'. People, as part of the tradition are crucial in this respect and cannot be neglected in the study of Buddhism. So if we use Smith's ideas as a starting point instead of Wiebe and Smart's cognitive view on religion, we will have a better outlook on what Buddhism is about. We don't just focus on Buddhism as a worldview or a collection of theories, but we will focus on the tradition as present in the lives of people. The role of experienced Buddhists who have gone through this learning process and have discovered and cultivated these aspects of the true nature of the mind in their own lives, is important in the transmission of this knowledge to the next generation.

1.2 Buddhism as a living tradition

1.2.1 Oral transmission in Buddhism

As we have tried to explain above, the dharma which was taught by the Buddha is not about texts or words as separate from the people who are part of the Buddhist tradition. The tradition starts to live in the connection between the texts and the oral interpretation of them (Klein, 1991). One way to bring these texts to live is through the practice of formal debate among members of the tradition (Klein, 1991). Dreyfus (2003) presents an inquiry into the nature of debate and its function in Tibetan scholasticism. It is through these dialectical practices, aimed at reaching greater understanding and developing crucial intellectual habits, such as a spirit of inquiry, critical acumen and creative reinterpretation that the authority of the tradition is transmitted (Dreyfus, 2003). The idea of 'guided rediscovery' is also present in these. According to him, practices of memorization, debate and oral commentary, assure the continuity of the tradition.

It is through the oral transmission that the understanding of the student is legitimized by a lineage which is claimed to be traced back to the historical Buddha (Berzin, 2000). For example the practice of Dzogchen was passed on carefully by some masters to only some practitioners, who in turn became masters who passed it on to another select group and for the rest it was kept secret (Tenzin Wangyal Rinpoche, 2001). This was passed on over several centuries in an unbroken line from master to student and so on (Tenzin Wangyal Rinpoche, 2001). This kind of transfer is called warm and this is what keeps the teachings alive, rather than something cold and intellectual, passed on through books (Tenzin Wangyal Rinpoche, 2001). It is in the discourse of the master-scholar that the tradition is conveyed to the next generation (Klein, 1991). Klein, who studied the Sautrantika texts, along with different oral commentaries, found considerable consanguinity of content and uniformity in the oral commentaries. According to her this is evidence of a genuine oral tradition of scholarship. Next to the individual questions which are entertained by teachers, there is a general body of knowledge available orally (Klein, 1991).

The role of the teacher is in many respects crucial (Fenton, 1981). The teacher is the one who explains the written texts of the dharma or gives oral instructions for the practices (de Wit, 1998). According to the Buddhist tradition, the right interpretation

of the text is one that drives the student in the direction of enlightenment (de Wit, 1998). Therefore the oral character of the transmission of the dharma is so important, because there is only one right interpretation for one student at a specific moment in a specific situation (de Wit, 1998). For that same student at another moment in the same situation as he was in before, another explanation could be more helpful. It is not about the letter of the dharma, but about the *living dharma* and about the transmission of the living dharma in the lives of people (de Wit, 1998). The mentor has the function of bringing the student to a *personal experience* (de Wit, 1998). That is why the lineage in Tibetan Buddhism is so important. The student needs the careful guidance of an experienced teacher (Gyatso, 1999).

The mentor himself has also learned in this way from his own master. He has learned to use the dharma in his own life and he has experienced what it was about. He has not just learned the words of the dharma. The mentor serves as a channel of communication of reality (de Wit, 1998). Some of what he does could be comparable to any kind of teaching, but in some respects he is like an athletic coach, with much that he does comparable to the motor learning (Fenton, 1981) of for example bicycle riding. It is while riding the bicycle that the student needs to receive instructions. Much of the teachings cannot be expressed in words, lest the student confuse the words with the learning (Fenton, 1981). It is about an *interaction* between what is taught and what the student does with these directions in his own life, followed by new directions of the master. This is how the lineage continues to develop from master to student, who then in his turn becomes a master. So the dharma is not something which can be learned from books. The tradition needs people who embody the tradition, to both teach and learn (de Wit, 2000).

The Buddhist tradition needs people who know the road by walking it themselves. If that is no longer present, than the tradition will lose its reliability and will instead rely on speculation of what the theories might be about, rather than on personal experience (de Wit, 2000). The tradition will no longer be alive, and will soon become something impersonal and external (de Wit, 2000). The texts will only be used in an intellectual and conceptual way. It will become like a memory amid many other memories in our heads (de Wit, 2000). This conceptual surrogate is unable to represent the experiential reality of spiritual life (de Wit, 2000). Books cannot replace the personal guidance of the transmission from person to person in a lively tradition (de Wit, 2000). So the oral transmission in which there is a constant feedback between teacher and student and the tradition as present in the experiences of them is crucial and constitutes a very specific learning process which is different from having conceptual or cognitive ideas in one's head. Like this the Buddhist tradition and the dharma as its traditional knowledge is regenerated in the lives of people who are the carriers of the tradition. In this way the Buddhist tradition has gathered through the centuries an amount of knowhow, which isn't based on convictions but on experiential research (de Wit, 1998).

This research is not based on *a priori*'s or convictions, but on unprejudiced perception of reality, a way of looking at reality, experience and the mind (de Wit, 1998). We will discuss the training of this perception in chapter 2 of part III. Convictions and conceptions could even be an obstacle to this way of looking at reality (de Wit, 1998). The conceptual framework Buddhism presents can thus both be a means to perceive the reality Buddhism is talking about, but could also become

an obstacle to this. So the way Buddhism is used by the individual is important and needs the careful guidance of a teacher who looks after this.

1.2.2 The role of the teacher in a process of 'guided rediscovery'

We can distinguish between different kind of teachers, as well as different kinds of students. For example there are a lot of people who are interested in Buddhism from a more distant point of view. These students of Buddhism are usually interested in gathering information. They can find answers in books or with a docent of Buddhism (Berzin, 2000). Geshe's and kenpo's are well trained teachers who can teach Buddhism as docents at universities. However they can also explain how one can practice the dharma in one's life. If students are more interested in Buddhism as a way of developing themselves, they must work with a dharma-instructor. A dharma-instructor gives his teachings from the point of view of their practical applications in one's life and is based on personal experience (Berzin, 2000). A Mahayana master is someone who guides the student on the bodhisattva-path (Berzin, 2000). A Tantric master is helping the student towards enlightenment, using tantric methods. Finally we have a kind of teacher which is called the root guru. He is the one who knows how to focus the heart and the mind of the student on the dharma (Berzin, 2000). A lama in Tibetan Buddhism can be any of these. He has followed a three year retreat. This means he has been in retreat for three years, three months and three days (de Wit, 2005) and has had intensive training in the texts and practices under the guidance of well-experienced retreat masters.

If we are interested in Buddhism as a way of cultivating the positive qualities of the true nature of our mind, we need a teacher who knows contemplative life and whom we can trust (de Wit, 2003). Because of the visible personal development of the mentor, students develop trust in the teacher (Berzin, 2000). By his way of life and his attitude in the personal contact with the student, the teacher is demonstrating that the teachings are pointing towards something which can be brought into one's own life (de Wit, 1998). For example Tenzin Wangyal Rinpoche (2001) reports how every moment in the presence of his teacher was a teaching in itself. The teacher embodies the dharma (de Wit, 1998). This means that he must be ethically disciplined, accomplished in meditation and have extensive scriptural knowledge (Tsong-Kha-Pa, 2000). He must know the positive qualities of the true nature of the mind from his own experience in order to be able to point towards these in the lives of the students. Therefore he must have learned to 'faculty of distinction' through meditation from his own teacher, like the way a music teacher is training the auditory faculty of distinction, which is putting the student in the position of being able to hear the dharma and pass it on to the next (de Wit, 1998).

That personal contact with the living dharma is made within the personal relationship between student and teacher and through the personal guidance of the teacher in the practice of the dharma by the student (de Wit, 1998). The student doesn't only need to learn the texts or their oral explanation or to contemplate on them through meditation. The student needs to be able to bring the dharma into his personal life and therefore he needs a source of inspiration which can keep him going. The mentor is someone who must be able to touch the heart of the student in a positive way and to give him the courage and the power to let go of his limited points of view and to let go of his negative habits (Berzin, 2000). In the traditional context in India and Tibet the connection between mentor and student is considered very important

(Tenzin Wangyal Rinpoche, 2001). The typical career of the Tibetan monk for example is focusing particularly on his relationship with his teachers from the time he arrives at the monastery through the course of his education (Dreyfus, 2003).

When inner stability develops from his practice, the student will also become able to see that the mentor is living in a primordial nakedness and that he gives his directions from this way of life. When the student sees with how much insight, compassion and care the mentor is dealing with the manifestations of his ego, the student will realise that his admiration for the mentor is actually a longing for a veritable human existence (de Wit, 2003). The trust, the student had in the mentor, will consequently become more characterized by a certain devotion (de Wit, 2003). Devotion means that the student will become open-hearted, and will no longer try to show himself from his best side and from there, will develop a true contact with the mentor (de Wit, 2003). In this way, the mentor can see if and how the student is evolving on the path of the Buddha (de Wit, 1998).

The mentor who knows his students well, can give personal instructions which are suited for that particular student (de Wit, 2003). Just like a mother will not teach her newborn child how to walk, a competent teacher will not ask the impossible to his student (de Wit, 2003). For example, the yidam a student in Vajrayana Buddhism will work with, is traditionally a choice of the vajra master (de Wit, 1998). He is the one who knows the qualities of the yidam and can see what particular qualities the student needs to cultivate at a particular moment (de Wit, 1998). That is why Vajrayana Buddhism is particularly an oral lineage. The personal relationship with the vajramaster is extremely important (de Wit, 1998). He can also concretely point out the Buddha-state in the mind of the student, if it occurs (de Wit, 1998). In this way he is able to have him recognize this state within himself and take it as a starting point for his practice (de Wit, 1998). The mentor is not only a channel of communication of this reality, but finally this reality of which the student becomes more and more aware, will become the channel of communication of the mentor. This is what is meant by the discovery of the inner mentor, also called the inner guru (de Wit, 1998). The relationship with an external master is an important step in discovering the master within (de Wit, 1998). Finally the mind of the student will become his own master (de Wit, 2003).

1.2.3 Personal 'way-finding' of the Buddhist practitioner

A popular Tibetan category which is used to refer to Buddhism is: the 'ground', the 'path' and the 'result' (Thupten Jinpa,). The 'ground' is the understanding of the basic nature of reality, the 'path' is the meditation and ethical action based on the insights of meditation and the 'result' is the attainment of full awakening or Buddha-hood (Thupten Jinpa, s.d.). Buddhism as a 'learning environment' is passing on means which are not only supposed to elicit insight in our minds and experience, but is laying out a path which has to be traversed. It is about the transmission of skills and methods which should point the way to enlightenment (de Wit, 2000). A straightforward description of the stages of the path is often not possible, other means of communication have been devised to give direction on the path without describing the whole path (Fenton, 1981). Some of the transitions to be made are abrupt and unprogrammable (Fenton, 1981). There is no book about the spiritual trip to be made, therefore, the individual guidance on the road itself is important (de Wit, 2000). The conceptual framework of the Buddhist tradition doesn't deliver us what it

is pointing to, but is rather about indications on the road we should walk (de Wit, 2003).

The metaphor of the road is often giving the suggestion that it is about a path which has already been laid out, we just have to follow it (de Wit, 2003). However in other times, going on a trip, meant to leave behind the known and to bring oneself in danger (de Wit, 2003). The possibility to oversee the road did not exist (de Wit, 2003). It is about a kind of learning process, in which one doesn't know ahead where the learning will take you. Gampopa emphasized the necessity of the spiritual mentor, just like a traveller needs a navigator when he travels an unknown route. He needs a guide to walk the spiritual path to enlightenment (Berzin, 2000). The Buddhist tradition is not like a map which is giving us the possibility to oversee the road. *We have to find our way, while walking it*. It is in this way we should understand the travel instructions of the tradition, they don't reach much further than that point which lies just in front of us (de Wit, 2003). Like in Smith's concept of 'human learning', the student has to be prepared to open up, without knowing ahead where this will eventually bring him. The idea of discovery is also implied in this concept. One doesn't know beforehand where one will end up, therefore one has to be prepared to go into the unknown (de Wit, 2000).

With Smith's concept of 'human learning', we can make visible that in Buddhism it is not only about the cultivation of knowledge, but about the cultivation of the knower (de Wit, 2003). The Buddhist tradition is passing on an array of meditative techniques directed at generating specific experiences in which the body, the senses and the consciousness are reshaped in specific ways (Fenton, 1981). Tenzin Wangyal Rinpoche (2001) for example reports that his practice during retreats brought about an important change in his personality. The symbolic and mystical language is not really used to describe the road or the experiences, but rather to transform the listener (de Wit, 2000). The instructions are pointing the direction of the spiritual way (de Wit, 2000). The meaning of them is only uncovered when one is bringing the instruction into practice oneself (de Wit, 2000). According to de Wit (2000) it is not possible to understand the spiritual prescriptions, if one has not experienced the actions and the states which accompany them. One cannot know the road by watching the road or the roadmap, one has to travel the road oneself. To understand a certain instruction, it is also said that one has to find himself on a certain kind of place on the way. For example if someone explains you the road to get to a certain point, often the instructions the person revealed to us, will become clear, once we have reached that certain point where they are needed. In this way it is said that certain instructions, might only become clear, only once we have reached a certain state of mind or once we have been confronted with certain situations in our lives.

The instructions are like guides in orienting ourselves in an unfamiliar territory. This unfamiliar world is the one of our own experience (Balagangadhara, 2005). The route descriptions encourage you to proceed thoughtfully on your journey (Balagangadhara, 2005). You need to doubt and test them, to go about the world experimentally (Balagangadhara, 2005). The experiments involve the experiences of the world (Balagangadhara, 2005). The key to understanding the hermetical language of tantric Buddhism lies in the personal traversing of the road as well as the relationship between the student and the teacher (de Wit, 1998). It is only within the context of the practice and experience of the student with the spiritual exercises in Vajrayana, that the language receives its meaning (de Wit, 1998). If the personal

relation or the personal way-finding is missing, then Vajrayana stays a closed book, even if now we can buy a lot of books about it (de Wit, 1998).

The metaphor of the road is also useful to indicate the continuous changes in the landscape (Reich, 2001). This indicates on the one hand the outer situations in the lives of Buddhists, but on the other hand, also the changing perspective on one's life, because of the changes in the perception as a consequence of the training Buddhists undergo (we will explain this aspect in more detail in chapter 2 of part III). It is by moving on the path of life, that one gains the kind of knowledge, which also changes the person who is going through this learning process. As in Ingold's conception of knowledge (see appendix 1), it is through this journey that we grow into a knowledge. Proceeding on our way, things fall into and out of sight as new vistas open up and others are closed off (Ingold, 2005b). It is through one's own practice that one should try to understand where the terms, used in the teachings, refer to, we should connect them with our own experience (Tenzin Wangyal Rinpoche, 2001). It is about the integration of knowledge along one's own path of travel (Ingold, 2005b). As one gains knowledge: one grows, one changes.

In Vajrayana Buddhism, every situation in life can be used as fuel for the vehicle on the road to enlightenment if one has received the instruction about how this situation can be used as fuel and one can find the courage and alertness to also try to bring it into one's life (de Wit, 1998). The practices of Vajrayana Buddhism can be compared with artistic activities, such as music or poetry, because it awakens something, it changes something in our perspective (de Wit, 1998). We understand it, not in an intellectual way, but it goes much deeper, affectionately and existentially. Vajrayana aims at the transformation of the way we look at the world and ourselves which will have a lasting impact in our way of life (de Wit, 1998). The metaphor of the road is indicating this changing perspective on reality (de Wit, 2003). It is this perspective which makes how we experience certain situations in our lives (de Wit, 2003). The experience of reality is an indication of the state, or of the phase in which the person finds himself (de Wit, 2000). One sees the road from a position, which belongs to a certain stage (de Wit, 2000). One needs a mentor who knows the path, from his own experience, just like in learning an art like painting, the attention and guidance of the master-painter is crucial (de Wit, 1998). He is the one who knows the meanings and functions of the Vajrayana meditation forms from his own experience and *who knows at what moment, the learning of what techniques are most effective* (de Wit, 1998). It is thus not only about one kind of experience (as in essentialism, cf. Part I)), but different methods eliciting different experiences and the place and the function these have in the phase of the actual spiritual development of the person (de Wit, 2000).

1.2.4 Including the diversity of experiences in the study of Buddhism

It is not about Buddhism *an sich*, but about the person, his experience and the contribution of the tradition to this. There is an interaction between these three. The person is a locus of growth and development within this field of relationships. The contribution of the Buddhist mentor to one's own knowledge and practice is one of setting up the conditions in which growth can occur. The Buddhist tradition is meant to help people on their *personal* way (de Wit, 2000). It is creating a learning environment in which people can grow. The personal and active involvement of the

student (as emphasized in Smith and Ingold's conception of tradition and learning) in this process of learning cannot be underestimated. Buddhism is not about waiting in blind trust until something mysterious is happening, it is about actively working on one's own experience (Tenzin Wangyal Rinpoche, 2001). The student is the one who finally has to do something with the teachings.

People are actually doing something with the Buddhist tradition, but what they do with it, varies from person to person. If the meditation of Tchenrezig is for example meant to elicit compassion in ourselves for the world around us, a person could also use the image of Tchenrezig to ask for his compassionate care for oneself. One could also burn a candle in front of a statue of Tchenrezig, as a way of paying respect, or as a way to ask for the relief of suffering for all sentient beings, or for the relief of one's own suffering. The tradition is offering different kinds of means, which the person can use in different kinds of ways. Which way is the right way or not is judged by the effect it elicits in a person's life. Buddhism is aiming at very specific effects, namely the cultivation of the true nature of the mind. But *where the interaction of a person with the tradition will take him, differs from person to person*. For example the Buddhist tradition can become part of someone's compulsive neurosis. In that case, a person can use the Buddhist tradition, to apply rituals to diminish his fears. Or the relationship with the teacher, can become meaningful in someone's hysterical or borderline personality, which could lead to difficulties for both of them and certainly will make the guidance on the path more difficult. Or a person might want to become Buddhist in order to teach other people about Buddhism, to feel important.

The teacher, however is there to point in the other direction, the direction of the true nature of the mind, rather than our conceptual frameworks and cognitive schemes or the basic phantasm, which constitutes the neurotic structures of people (cf. Chapter 1, part II). In this sense the teacher will compel respect and devotion. But the devotion should not be in such a way that the teacher is put on a high throne, far away. This devotion should help the person to overcome his resistances, and enable him to consider what the lama points out in his life, that he might not really like to hear and would prefer to deny. If the student only considers the teacher to be a fishing pond, in which he gets some wisdoms, and devalues others and ascribes them to the teacher's misunderstanding, or the impure aspects of his religion, the teacher cannot fulfil this function of pointing out the true nature of the mind.

When the lama tries to point out this ultimate reality of the mind in a compassionate way, by teaching that we shouldn't narrow our minds by focusing/fixating on certain thoughts or emotions, or by practicing in a meditation retreat together with students, this can have an enormous impact on the lives of individuals. The aim of meditation is to practice this 'keeping open of our minds', rather than clinging to what this means to oneself or to the experiences which were elicited by the practice. In that case, they will become like a mental object in the 'conceptual consciousness', while these means (the teacher, the meditation) are there to reach out for something beyond the 'conceptual consciousness'.

The discovery of the true nature of the mind beyond this conceptual clinging, is the kind of learning processes we should not neglect in the study of Buddhism, since this is what Buddhism aims at. It are these learning processes which should be mapped and studied. The teaching about the ultimate reality is not only a 'doctrine' or to put

it in secular terms, a theory within a certain worldview. It is about a process of discovery the person is making within himself. The tradition is passing on the learning instruments for this process and the relationship with the teacher is creating the environment in which the student can further grow into the tradition. Therefore, in order to study Buddhism we should study the experiences of the people and the processes of change this elicits in the person's life. The tradition as 'learning environment' is meant to create these experiences and to cultivate the true nature of the mind. When the person has discovered and cultivated this in himself, he is starting to embody the tradition more and more. It is only if the person has enough expertise through his own experience and has cultivated the true nature of his mind, that he can pass on the tradition to another generation.

However we should not only focus on the flowers of these learning processes, but direct our attention to all aspects of spiritual development. The relationship with the lama or 'being a Buddhist' could also receive meaning within the conceptual frameworks, the mental or psychological reality of the individuals, as *homo symbolicus,* even if the teacher is aiming at cutting through these conceptual frameworks. It is only human that students will also impute meaning on the reality of the relationship with the teacher. However if we only study these meanings, significations and interpretations, as Smart and Wiebe proposed, we will omit to study the learning processes involved in cutting through those conceptual frameworks. In the study of Buddhism, we must keep our view open to all these different aspects in the lives of people belonging to the Buddhist tradition. We should have eye for all the aspects of change, the interaction with the tradition elicits in people's lives.

There are different ways in which we can map these processes of change. Some ways which have been used are physiological parameters, or brain scans. It is now also done by using questionnaires which are measuring the personalities of people, their attitudes towards other people, towards their own thoughts and emotions. One could also measure the person's ability of empathy in various ways. We could even use Buddhist theory to get ideas on how we could operationalize and measure the changes Buddhism aims at in people's lives. For example the Buddhist concepts of 'sukkha' and 'dukkha' could be operationalized. 'Dukkha' is about a certain attitude towards life, which causes suffering. It is about grasping after one thing or an idea, such as the 'self', while 'sukkha' is about an attitude of acceptance towards events, people, thoughts, emotions, … which is said to lead to happiness. An operationalisation of these two concepts could make it possible to map the processes of change in the direction of 'sukkha', as well as conceptualized experiences of people involved in a 'sukkha' attitude towards life.

1.2.5 Meditation as 'guided rediscovery' of something beyond conceptuality

As extensively discussed in chapter three of part II, Buddhist psychology is about how the conceptual mind exists in imputing conceptual frameworks such as a self, an external world, on the flow of experience which arises dependently of many aspects in a field of relationships. We have showed how this mind is itself part of this field of relationships and is influencing and obscuring the perception of reality. The conceptual mind is fixating and clinging to these reified entities and therefore has only access to a relative reality. This functions as a veil which makes that a lot of

aspects in our experience are not accessible and we have a poor, deformed or even wrong view on ourselves, other people, situations or phenomena in general (de Wit, 2003). Buddhist psychology, however also recognizes the possibility in the human mind to develop the faculty of distinction which can discover the working mechanisms of this way of experiencing reality and to overcome it (de Wit, 2003). According to de Wit (2000) the emphasis on conceptual strategies in Western psychological science is a limited view, compared with the approach within the living spiritual traditions.

The Buddhist tradition consists of methods to develop a clarity of mind which is said to enable us to distinguish the how and where of this relativity in our experience of reality (de Wit, 2003). The education of the attention is necessary in this (de Wit, 2000). This attention can go a lot further than merely thinking about it in a conceptual way (de Wit, 2000). Meditation is about the training of this 'faculty of distinction' and the 'training of the attention' (de Wit, 1998). It is about the training of the perceptual systems that enable a perception of the mind and experience which is unbiased by *a priori* ideas. Therefore the Buddhist tradition cannot be reduced to these theories or to a worldview alone. These are only means to make possible an unbiased perception (de Wit, 1998). We will focus on the precise mechanisms of the training of the attention within shamatha meditation in chapter 2 of part III. Shamatha and vipassana meditation aim at cutting through the fixation on profane, but also the religious conceptual frameworks (de Wit, 2000).

In order to break through these clouds of conceptual thinking and uncover these non-conceptual states, the relationship with a spiritual mentor is considered crucial (Berzin, 2000). In Tibetan Buddhism there are non-conceptual methods by way of which the lama introduces the student to 'Rigpa' in which the mind manifests itself in a crystal-clear, lucid way, not deformed by thoughts or concepts of the ordinary mind (Dalai Lama, 2002). There is for example a story about a well-accomplished master and a famous student, which explains how the student reached enlightenment because the master hit him on the head with his shoe! Whether this is a joke or not is sometimes difficult to find out. The Tantric twilight language, as well as jokes, used by teachers is meant to allow people to slip out of the conceptual structures and limitations of their minds (Fenton, 1981) and to wake them up from their familiar ideas and dreams. The relationship with the mentor is important in discovering something beyond these conceptual frameworks.

The role of the mentor is to set up situations in which the student is afforded the possibility of such unmediated experience. He is the one who provides the individual meditation-instructions (de Wit, 1998). The student is instructed to attend particularly to this or that aspect, so as to get the feel of it for himself. Guidance in meditation is a personal and oral process which cannot be replaced by a book (de Wit, 2005). These oral, personal instructions are called 'zhal-lung'. Some of these instructions given through oral teachings are now sometimes published in books (Berzin, 2000). However reading about them alone, does not suffice (Berzin, 2000). For a book to function as a teacher, it is said that one first needs to have received personal instructions from a qualified master (de Wit, 2003). While much can be learned from books about meditation, for dedicated sustained practice, there is no substitute for a knowledgeable and experienced teacher (Wallace, 2006b). The crucial details and correctives are always given orally, from teacher to student and it is this which brings life to the printed page of written instructions (Wallace, 2006b).

This personal guidance is necessary because every human being is dealing with the instructions in another way and corrections by a teacher are necessary (de Wit, 2005). They are the reliable navigation systems which should enable the student to reach his goal accurately and safely (Berzin, 2000). The student has to discover for himself what this experience is about by practicing meditation using the oral instructions as his guide (de Wit, 2003). The mentor doesn't immediately give all the directions necessary (Berzin, 2000). Instead they give one single hint or give only a fragment of an indication, which makes that the student has to put the pieces of the puzzle together by himself (Berzin, 2000). The mentor gives some directions and after putting them into practice, the student returns to his master to talk about his experiences (Tenzin Wangyal Rinpoche, 2001). It is only after the student has done something with the instructions and this has brought him up to a certain point in his experience of the meditation that he is ready to receive the next instructions. Little by little the students develop the ability to receive instructions and to understand the instructions in a more subtle way (Berzin, 2000). Practicing meditation needs a regular feedback from the mentor, just like when we want to train in gymnastics, one cannot do this without the careful guidance of trainers (Berzin, 2000). He has to follow up the progress the student is making and correct his mistakes (Berzin, 2000). He has to drive away our fantasies and keep our spiritual practice realistic (Berzin, 2000).

As his experiences accumulate and as the techniques of meditation are increasingly mastered, not only the instructions of the practice but also the kind of insight that is sought as the goal, become increasingly comprehensible (Fenton, 1981). The knowledge this generates is knowledge that the novice discovers for himself through his immediate experience. In this way it is assured that meditation or the knowledge derived from it, is not an imitation, but is something which originates from the experience of the student himself. That which cannot be passed on through words, is learned by the student within this learning environment, but by himself.

After we have done meditation, we should go to the lama and ask questions (Traleg Rinpoche, 2004). Sometimes we conceptualise about our experience instead of having genuine experience (Traleg Rinpoche, 2004). We have to be very careful about forming concepts and how we describe our meditative experiences. If we read a lot about meditation it is very tempting to try to make sense of what one is experiencing with the vocabularies that we picked up in our education, instead of the original experience. The lama can point this out to the student (Traleg Rinpoche, 2004). It is important to resist trying to express what we have experienced in concepts and categories. Instead, one should do this as natural as possible, when trying to answer what one is experiencing to the meditation teacher (Traleg Rinpoche, 2004). We use a non-contrived style without being very sophisticated and articulated in a well-exercised response (Traleg Rinpoche, 2004). The student has to experience something by himself and learn by himself, from his own experience. The conversations with the lama about this have to watch over it that we don't just match our experience to what we have heard in the teachings. The experience has to stay genuine and not a copy of what has been heard before (Traleg Rinpoche, 2004). It is not about implementing something in a mechanical way, but about discovering it for oneself (cf. Ingold's conception of knowledge, see appendix 1). The lama has to watch over the fact that the student can truly discover things in a genuine way, by himself.

2 An education of the attention

In chapter 1, we used ecological psychology as underlying theory to our concepts, to show how the Buddhist tradition is passed on from one generation to the next, and to emphasise that it is not about passing on cognitive or mental contents. We emphasized that the conceptual framework of Buddhism is more than just words, but is creating a learning environment in which the student can discover the true nature of the mind by himself. This learning process is exactly about discovering something beyond the conceptual frameworks, beyond the mental models in one's own mind and beyond the Buddhist concepts as well. The Buddhist tradition provides means, which can help the student in that direction. Thus the tradition is more than a 'symbolical system'. The student has to finally find his way by himself, making use of the tools provided by the tradition. These means are the symbols used, the mysterious language used, the guidance of the teacher and meditation. It is not about the meaning of the words, but about the effects they resort in the student.

Above we talked about the training of the attention and perceptual systems during meditation and the important role of the lama in this enskillment. However we have not gone deeper into what the training of the attention (the second main training in Buddhism) exactly is about, or what kind of perceptual systems need to be trained. In ecological psychology the environment plays an important role in the training of skills. During the education of the attention in meditation, the mind functions as environment, while the attention can be considered as a perceptual system requiring training. In Buddhism, the inner chatter in the mind, the thought-stream, the emotions, the sleepiness in the mind and so on, are considered aspects of the mental domain which can be experienced and perceived. We are able to observe the movements in the mind. While the eye perceives colour, the attention as mental sense, is the sixth perceptual faculty which can perceive what is going on in the mind. So the mental domain is considered part of our environment and can be perceived. Mental perception is not the same as the capacity to think or to remember, it is about perceiving thoughts, memories, etc. in the mind.

According to Buddhism this mental perception can be enhanced through training by shamatha meditation. After extensive training, objects of the six domains, including the mental domain, will be perceived in a direct, unmediated way. We will be able to distinguish between direct perception and the conceptual superimpositions. In this way, conceptual consciousness no longer functions as a veil between the mental sense and the perceived. In this chapter we will go deeper into what this skill is exactly about and what the fine-tuning of the perceptual systems is about. We will especially focus on shamatha meditation, because it is in this particular kind of meditation that one is cultivating the attention. However it is not our intention to give the impression that shamatha would be the essence of Buddhism. Shamatha meditation is not even practiced in Buddhism alone. It is also practiced in Hinduism for example (Tenzin Gyatso, 1984).

During shamatha meditation, mindfulness and awareness are trained, comparable to the training of a muscle. It asks a lot of regular, well-aimed practice, repetition and habituation to develop these capacities. We will conceptualise shamatha meditation as an education of the attention in the Gibsonian sense of the education of the perceptual systems. In shamatha meditation we can distinguish different aspects of the mental sense as a perceptual system which is training the constant fine-tuning

and readjustment to the mind as environment. We will discuss this fine-tuning in detail and further discuss this for the different stages of shamatha meditation. In this process the interplay of mindfulness and awareness and the tightening and loosening method with respect to these in response to the momentarily state of mind as environment are complex and need a skilful training. The result is a stable and clear attention which has become skilled in the application of mindfulness and awareness at the right moments. Also mindfulness and awareness themselves will become more trained. Another result of shamatha meditation is that the mind as environment will change, in the sense that it will become pacified.

We will further discuss how shamatha is not like the acquisition of any kind of skill. Meditation techniques are about skills that cultivate something which is originally already present in us. It is about cultivating the true nature of the mind. It is more likely about the unlearning of habits such as mindlessness in order to let the mind come back to its natural state, rather than grasping after all kinds of distractions. It is rather about discovering the innate stillness and vividness of awareness rather than developing something new. We recondition the mind, so that the habit of conceptual grasping subsides. As a result of this, something is disclosed of the conceptual veil which obscures experience and reality. The fundamental nature of the mind will become manifest and is said to be clear, like light, lucid, spacious, knowing. This facilitates another kind of knowledge. During meditation we don't create a special state, something new: one cultivates what is natural. The dharma and the practice are only means to manifest and foster this Buddha-nature. Shamatha is a first step in this direction.

The Buddhist path is not ended once one has cultivated the attention in such a way that one has reached shamatha as the result of shamatha meditation. As we have pointed out in chapter three of part II and in the beginning of part III, Buddhism is about a lot more than meditation. There are different kinds of meditation as means to cultivate different positive qualities of the mind, which will help the Buddhist on his path towards enlightenment. Shamatha meditation is important in this, because it helps us to develop certain skills which are consequently further used on that path, for example in ethical discipline (the first main training in Buddhism) and the gaining of insight in the phenomena (the third main training), as well as many other meditation techniques. In insight meditation, for example we will use the shamatha mind in order to gain insight in the interdependent arising of experience, the mind and other phenomena (also called 'emptiness'). Without the ability cultivated in shamatha meditation, we will usually not be able to distinguish between reality and our own conceptual imputations.

2.1 Perceiving mental contents

2.1.1 Mental contents as psychological environment

As a human being we are surrounded by our environment, perceiving what is going on around us. Usually there is a lot of inner chatter and comment accompanying our experience. This commentator behind the stage of the theatre of our lives seems to be distant from the situation itself, which it is commenting (de Wit, 2003). Have we ever looked directly at this specific kind of activity of the mind or have we allowed it only to look at ourselves and to think about ourselves? Have we ever looked at the commentator or our thought-stream itself instead of listening to its comments (de

Wit, 2003)? Academic psychology considers thinking as something which is more or less standing apart from experience (de Wit, 2003). The hypothesis that thinking and experiencing are very different and separated domains is widely accepted, also in philosophy (de Wit, 2003). According to Buddhism however, this mental domain is something we can experience, rather than it being something which is commenting our experience and standing aside from the experience itself (de Wit, 2003). It is not a domain which stands apart or above experience, but it is seen as part of the total field of experience (de Wit, 2003). This commentator is part of the situation and is influencing our stream of experience (de Wit, 2003). The mental domain is not a hypothetical, un-experience-able, non-empirical domain.

In Buddhism, thinking is considered to be something we can experience, as part of the total field of experience, it is not standing behind the stage of the theatre of our experience. What we experience by means of our senses and the things we think about it are standing together *on* stage (de Wit, 2003). It is thus not only a domain in which we can think, fantasise, speculate, or reflect (de Wit, 2003). According to Buddhism this *mental domain* can be *perceived*. Humans are able to perceive this mental domain and observe the movements in their minds (de Wit, 2003). It has something to do with being conscious and alert of what is going on in the mind (de Wit, 2003). It is thus not only possible to think about the experience, but it is also possible to experience what we think (de Wit, 2000). One is not hopping onto the thought and thinking it through, and as such becoming the producer of it (de Wit, 2000). One becomes the public of the thought and simply observes it (de Wit, 2000). What happens in the mind, can thus be considered as part of our environment, it can be perceived. Just like our eye perceives the flowers in our environment, we can perceive what emotions and thoughts are coming up in our mind, the mind as psychological environment.

2.1.2 Mental perception

The idea of perceiving mental contents is most explicitly formulated where Buddhism speaks of the sixth perceptual faculty (de Wit, 2000). This is the faculty which perceives what is going on in the mental domain (de Wit, 2000). In terms of Asanga's Abhidharmasamuccaya, mental perceiving is defined as the function which perceives conceptualised contents of the mind (de Wit, 2000). Mental perception is viewed as being quite distinct from our capacity to think, remember, imagine, ... all of which are conceptual faculties (Wallace, 2001). It is about perceiving thoughts, memories, images, sense perceptions etc, by the mental sense. In this case the mind is a psychological environment which can be perceived by the mental sense. Buddhists regard the mental domain as perceivable through a mental sense, which can be placed next to the other five senses (Garfield, 1995). Nagarjuna, in his Mulamadhymikakarika which was translated by Garfield (1995: p. 136-137) puts it this way:

> "Seeing, hearing, smelling,
>
> Tasting, touching, and mind
>
> Are the six sense faculties.
>
> Their spheres are the visible objects, etc."

While the objects of the eye sense are visual objects, the objects of the mental sense are thoughts, ideas, mental imagery, memories, moods, dreams, emotions, etc. (Wallace, 2001; Komito, 1987). The mental consciousness is that which we usually refer to as thoughts or the thinking mind (Komito, 1987).

According to Nagarjuna, carving up these six different components represents a conventional taxonomy only. In reality they are interdependent phenomena, which means that for their existence, they depend on each other (Garfield, 1995). The interaction between what is perceived through these six senses is what is presented to us as our experience of reality. That which is perceived through our five senses becomes mixed with the objects from the mental sense, such as memories, hopes, fears, ... (de Wit, 2003). As we discussed earlier, in chapter three of part II, the perceptions of the other five senses, become in their turn object of the mental sense, since the mental sense is dependent on the previous moment of conscious (Komito, 1987). If this previous conscious was a sense conscious (the sound of birds flying over), the perception of the sound, is one moment of perceptual consciousness and this is the moment of consciousness exactly preceding the mental consciousness (Komito, 1987). Our attention is not refined enough to directly perceive the sense perception as object of the mental sense. Our attention can only capture the sense perception after it has been mixed with the mental objects of the mental sense. Our experience will not consist of the sound of the birds flying over, alone. We will see the birds flying over in our mind, because we have coupled the sense perception of the sound to the mental object (an image of birds flying over the sea). Our attention jumps rapidly from one sense field to another, like a chimpanzee (Wallace, 2006b). The so-called searchlight of attention is not a steady beam, it flickers on and off (Austin, 1998). And it cannot distinguish which information it got from where, it just sees the whole picture, but it doesn't see how this picture came into existence, thus creating our experience of reality. We will usually not stand still with this experience, that what we have actually perceived, was only the sound. According to Buddhism: the sound is perceived by perceptual consciousness and this perceptual consciousness is perceived by the mental sense. Also the image of the birds flying over is perceived by the mental sense. These two become mixed and are presented to us as reality. But this reality we experience, is thus partly dependent on our own mind which generated the image of the birds, perceived by the mental sense and partly because of the outside world, the actual birds which generated the sound, which was perceived by our perceptual consciousness and consequently also by our mental sense. In this way everything we experience in life, is dependent on the mind (Traleg Rinpoche, 2005).

2.1.3 Training the mental sense

Our faculty of attention affects us in countless ways. Our very perception of reality is tied closely to where we focus our attention on (Wallace, 2006b). Each of us chooses, by our ways of attending to things, the universe we inhabit and the people we encounter (Wallace, 2006b). "Who am I?", consists of those things we have been paying attention to over the years (Wallace, 2006b). The reality that appears to us, is not so much what is out there, as it is those aspects of the world we have focused on (Wallace, 2006b). There are moments in our experience, where we become conscious of our blindness and realize that we have an influence in our own experience (de Wit, 2003). But this waking up can be cultivated to become a 'faculty of distinction', by which we have a clear view on the way our experience of reality is

presented to us and the influences which come from our own mind are being perceived (de Wit, 2003). While the five physical senses can be corrected, enhanced and extended by external technological means such as eyeglasses, telescopes and microscopes, mental perception is not so easily amenable to technological enhancement (Wallace, 2001). According to Buddhism, however mental perception can be enhanced, refined and extended through mental training such as shamatha meditation (Wallace, 2001). We can steadily enhance our capacity of attention, strengthening this mental ability just as we can our triceps (Wallace, 2006b).

By cultivating our 'faculty of distinction', it becomes possible to distinguish objects, without the use of language, thoughts, labels (Komito, 1987). Austin (1998) testifies what the effects of a Zen meditation retreat, where the training of attention and bare awareness were practiced, were. Before the retreat, a blur of perceptions had taken in an ordinary world, while after the retreat, his perception was both sensitized and subtly transformed: two eyes and both ears were wide open (Austin, 1998). With one's senses open and expanded, thoughts and actions also took on a lively efficient quality (Austin, 1998). One is developing an instrument which will make it possible to perceive things in a *direct, unmediated way* (Komito, 1987). It means taking in the observed phenomena in a direct way, as fully as possible: both perceptually and conceptually, while still being sensitive to practical distinctions between what is presented to the senses and what is superimposed upon them by the mind its mental contents (Wallace, 2001).

By cultivating the 'faculty of distinction', it becomes possible to have direct perceptions of phenomena (presented to the 6 senses) and to see how these direct perceptions are becoming mixed with objects from the mental sense and as such giving rise to conceptual forms of consciousness (Komito, 1987) which consequently functions as a veil which is obscuring a clear view of reality. One will become able to distinguish between the phenomena that are presented to our six modes of perception and the conceptual superimpositions that we often unconsciously and involuntarily impute upon those phenomena, including labels, categories, and thoughts aroused by our emotional reactions (Wallace, 2001). This means that the conceptual consciousness no longer functions as a veil between the mental sense, and the perceived.

This is often characterized as a de-automatization, an undoing of automatic perceptual and cognitive structures, that permits a gain in sensory intensity and richness at the expense of abstract categorisation and differentiation (Jackson, 1996: p. 27). Shamatha thus brings an end to the fixation on the inner stream of thoughts, which is usually narrowing our consciousness (de Wit, 2003). In order to accomplish this, one has to train the attention (the mental sense), so that it is educated to perceive in a better way. That is what we do in shamatha meditation. Through this meditation we train the attention in such a way, that it becomes steady and alert and becomes enabled to perceive what is going on in the mind as environment. Through the training of the attention in shamatha meditation, one will become better in observing one's own thoughts, without getting dragged along with those thoughts, thinking them through. The shamatha techniques cultivate the sensitivity for the details in the mental activity (de Wit, 2000).

Western scientists; psychologists' and neuroscientists' focused on investigating normal or impaired attention, and little efforts were made to investigate whether the

attention can be trained (Wallace, 2006b). The cultivation of attentional stability has been a core element of the meditative traditions throughout the centuries, producing a rich collection of techniques and practices (Wallace, 2006b). Tibetan Buddhism provides detailed instructions for achieving focused attention (Wallace, 2006b). We cultivate bare attention, in which the mind is fully focused on the sensory impressions appearing to it, moment to moment, rather than getting caught up in conceptual and emotional responses to those stimuli (Wallace, 2006b). For example, one learns to recognize the difference between the tactile sensations of the breath (as object of the attention) as opposed to the mental images which are superimposed by the mind (Wallace, 2006b). We integrate the quality of awareness that we cultivate during meditation, with the awareness that we bring to our activities in the world throughout the day (Wallace, 2006b). For example what we do physically, verbally or mentally we should try to do it with awareness (Traleg Rinpoche, 2005). We can be mindful of walking, eating, etc. Our perception will become more refined and that has an impact on how we lead our life (Traleg Rinpoche, 2005). Through the practice of the mind, we cause a transformation (Traleg Rinpoche, 2005) in the whole person. It will not stay limited to the education of the attention. This in turn will have an influence on the person's path.

However when one stops meditating, all the ignorant views (confusing conceptual superimpositions with perceptual information) will become manifest again, because during the meditation they are only being bracketed (Komito, 1987). Shamatha meditation is an important start, but it should be followed by analytical or vipassana meditation in order to completely drive away this ignorant way of perceiving the world (Komito, 1987). Once our attention is developed in a satisfactory way, one can apply this in order to learn how our experience of reality is being formed to be presented to us (de Wit, 2003). This spontaneously happens on the exact spot where our experience is formed in daily life, as a result of the training of the mind (de Wit, 2000). But this is also what we do in vipassana meditation. Therefore it is necessary to culivate the attention during shamatha meditation, in order to use this trained or cultivated mind in the vipassana investigation of the mind and reality.

2.2 Shamatha meditation as an 'education of the attention'

In order to describe what shamatha meditation exactly entails, we will be guided by some authors who are considered authoritative to teach about this subject, because of their own extensive experience in the field. Alan Wallace has practiced shamatha extensively during many different years both in solitude where, he directed his whole life single-pointedly to the training of shamatha, as well as during his married life in the West, where he continued to practice and teach this skill. Han de Wit, studied meditation with Chögyam Trungpa and has been authorized by him to teach meditation. Chögyam Trungpa is a famous lama, who is considered as part of the Indo-Tibetan lineage of Buddhism and plays a key role in passing on the lineage. Furthermore we will use some of the oral transmission, typically for the Kagyu pa tradition, passed on by Traleg Rinpoche, also a well-respected and famed holder of the Kagyu pa lineage within Tibetan Buddhism, who is said to be part of the lineage since many life-times. He received extensive training in many meditation forms, as well as shamatha. We also used the Dalai Lama's (here referred to as Tenzin Gyatso) description of the nine stages of shamatha. The Dalai Lama is the head and holder of the Gelugpa lineage of Tibetan Buddhism, and has received extensive training in meditation, since childhood. He is also said to be part of the lineage since many

lifetimes. His fame and authority is even known to any Western person and doesn't need any further explanation. We also used some comments of Francisco Varela, who was a student of the Dalai Lama and who was a well-respected neuroscientist, who did extensive research on meditation and initiated a dialogue between science and Buddhism. Also the other authors referred to in these texts, are well-experienced practitioners, whom because of that receive the authority to speak about shamatha meditation.

2.2.1 Shamatha meditation as a skill

The practice of shamatha is something we can find in many traditions within Buddhism: in sutra- and tantra-Buddhism, as well as in the Bön-tradition of ancient Tibet (Tenzin Wangyal Rinpoche, 2001). Shamatha is considered as a necessary and fundamental practice, in which one exercises skills, that are needed in other Buddhist practices. The cultivation of meditative quiescence, during shamatha meditation is regarded as an indispensable prerequisite for the cultivation of contemplative insight (Wallace, 2001). In vipassana meditation one uses the attention, which has been trained, in order to investigate the emptiness and interrelatedness or interdependent arising of phenomena, such as reality, the self, and the mind. The purpose of shamatha meditation is to develop stability and vividness of the attention (Wallace, 2006b). The practice of shamatha starts with a mind which cannot focus for more than a few seconds and culminates in a state of sublime stability and vividness of the attention (Wallace, 2006b).

In shamatha meditation we develop *mindfulness* and *awareness* like the training of a muscle that can then perform harder and longer without tiring (Varela *et al.*, 1993). The method in shamatha doesn't consist of bodily actions, but of mental actions, such as the systematic placing of the attention (de Wit, 2003) on the object of meditation and while doing so, letting go of the thoughts which are naturally coming up. This is called mindfulness. This is the main instruction given during shamatha meditation. For the rest it is left to the student to find out for himself what this could actually mean, in doing the practice. In the beginning one doesn't really know what this instruction is actually about. One enters an unfamiliar terrain. How to pay attention to an object of meditation without being distracted is easily said, but when actually trying to put this instruction into practice, one discovers that this is not so easily done. The untamed mind constantly tries to grasp some point or another in the field of experience. The mind can be compared with an untamed horse, which needs to be tamed during meditation. This taming is a gradual process, which should be done with a lot of patience (de Wit, 2003). We don't do this in an abrupt way, it is a process of fine-tuning. If the mind is too wild, we don't bring the robe back in, but we give it space. If the mind is more calm, we slightly tighten up the discipline (de Wit, 2003).

One can compare the education of the attention to the development of a skill like learning to play a flute (Varela *et al.*, 1993). One first receives instructions on how to do it, one learns how to position the fingers. One than practices these notes in various combinations over and over until a basic skill is acquired (Varela *et al.*, 1993). In the beginning the relation between mental intention and bodily act is quite undeveloped. Mentally one knows what to do, but one is physically unable to do it (Varela *et al.*, 1993). This is also the case with mindfulness and awareness. One first receives the explanation about what we should do when being mindful, or what

awareness is about. But to actually bring this instruction into practice, during the engagement with the mind as environment, is not so evident. As one practices, the connection between intention and act becomes closer (Varela *et al.*, 1993). It is by putting the instructions into practice and interacting with your own mind as environment, that one gets the feel of things (Varela *et al.*, 1993), for oneself and learns through one's own experience (cf. learning as 'guided rediscovery').

One then practices, further developing the skills of mindfulness and awareness, for oneself. Not all the information is given in the instruction itself. Part of the instructions become understandable while doing the practice. While the untrained attention tends to shift from one field to another and tends to cling to thoughts, feelings, and concepts as if they were a solid ground (Varela *et al.*, 1993), as one progresses in shamatha meditation one learns to experience one's thoughts in a very conscious way (de Wit, 2003). This means we no longer experience our thoughts as reality, but experience them as thoughts (de Wit, 2003). We learn *to be aware* of thoughts, rather than being the *thinker* of thoughts. This is how the meditator, through sustained practice, *discovers* what awareness is about and becomes more skilled in it. In the first phases of shamatha one especially focuses on mindfulness, while later one also starts to develop awareness.

It seems very simple to write this down on this paper, but mental training is a process which requires a lot of patience and practice, just like the training of the body by an athlete asks a long and intensive training in order to be successful (Geshe Sherab Gyaltsen Amipa, 1986). As in physical training, the key lies in well-aimed practice (Wallace, 2006b). Meditation takes much patience, practice and skill (Austin, 1998). As with any skill, such as playing the piano or learning a sport, we can through drills, repetition, and habituation over time, develop capacities presently beyond our reach (Wallace, 2006b). There is a cumulative effect in progress (Traleg Rinpoche, 2005). If you practice 20 to 30 minutes every day and don't waste too many days every week, you will have more effect than if you practice only once in a while (Traleg Rinpoche, 2005). In analogy with physical exercise, one shouldn't practice too long in one time, but regularly (Traleg Rinpoche, 2005). The meditator slowly learns to deploy attention wholeheartedly into the now. Undivided attention then becomes free to shift into whichever field is required (Austin, 1998). This will result in the experience that everything becomes crystal-clear, one has removed one's veils, one has dropped one's shields, one has taken off one's dark glasses, one has taken out one's earplugs, one took off one's gloves and one took off one's heavy boots (Pema Chödrön, 1991). Because of regular practice, this state of mind starts to become part of one's personality (Berzin, 2000).

2.2.2 A fine-tuning of the perceptual system

In the former chapter we explained how shamatha meditation can be conceptualised as the education of the attention. We are inspired in this by ecological psychology, and its theory on the education of the attention and the perceptual systems. These consist of a whole system in which the perceptual organ is one aspect. In shamatha meditation, awareness is monitoring the movements in the mind (as psychological environment. The actions taken in response to what is perceived in the environment are also considered part of the perceptual system in ecological psychology. The perceptual system is characterized by a continuous fine-tuning and readjustment of the perceptual system to the movements of the environment. In shamatha

meditation the actions consist in the application of mindfulness or awareness and the loosening and tightening method with respect to these, in response to the state of mind (agitation or dullness). We will explain these basic processes of shamatha in detail below.

Developing mindfulness and awareness

In the initial stages of traditional shamatha meditation, we should try to keep the attention on the meditation object, without becoming distracted by thoughts (Traleg Rinpoche, 2005). This is done to facilitate the stability of the attention. The main focus of shamatha meditation is the object of meditation, by the application of mindfulness and awareness (Traleg Rinpoche, 2005). *Mindfulness*[13] means that we keep the mind in the present and try not to get distracted. One tries to keep the attention with the meditation object (Traleg Rinpoche, 2005; Wallace, 2006b). In this context we refer to mindfulness as a mental act. Our practice of mindfulness of breathing consists of prolonging our awareness of our breath through mindfulness (Wallace, 2006b). The opposite of mindfulness is forgetfulness (Traleg Rinpoche, 2005). This means we are unable to stay focused and engaged with the object of

[13] In recent years a growing number of psychologists do research on mindfulness and the effects of Mindfulness Based Cognitive Therapy. According to them, mindfulness is a kind of non-elaborative, non-judgemental, present-centred awareness in which each thought, feeling or sensation that arises in the attentional field is acknowledged and accepted as it is (Bishop, Lau, Shapiro, Carlson, Anderson, Carmody, Segal, Abbey, Speca, Velting & Devins, 2004: p. 232). But their definition of mindfulness is very different as how mindfulness is described here (Wallace, 2006b). Their definition is based on the descriptions of mindfulness presented in the modern vipassana tradition of Theravada Buddhism (Wallace, 2006b). It differs significantly from the Indo-Tibetan Buddhist version, discussed here (Wallace, 2006b). The vipassana approach views mindfulness as non-discriminating moment-to-moment bare awareness or non-conceptual awareness that does not label or categorize experiences (Wallace, 2006b). These are terminological differences from one Buddhist tradition to another (Wallace, 2006b). This definition corresponds more to the instructions on awareness, given in the Mahamoudra and Dzogchen variant of meditation within the Indo-Tibetan branch of Buddhism (Wallace, 2006b). However in the Indo-Tibetan approach, these practices are traditionally only recommended from the 5th stage of shamatha on, once one has cultivated mindfulness sufficiently one can also start to concentrate on the cultivation and use of awareness (Wallace, 2006b; Traleg Rinpoche, 2005). In contrast to traditional shamatha, in Mahamoudra shamatha practice, one has a more tolerant attitude to thoughts and emotions coming up (Traleg Rinpoche, 2005). One doesn't see them as disturbing the meditation, trying to prevent them from arising, or once risen noticing them and turning back to the object of meditation, using mindfulness and awareness in the process, as is done in traditional shamatha (Traleg Rinpoche, 2005). One rather uses both mindfulness and awareness to simply take notice of them when they arise and to let them be (Traleg Rinpoche, 2005). This comes closer to the instructions given in MBCT. What is called mindfulness in mindfulness approaches in academic psychology is rather called awareness in Indo-Tibetan Buddhism.

meditation (Traleg Rinpoche, 2005; Tenzin, Gyatso, 1984). If this is the case, one should apply mindfulness as antidote (Tenzin, Gyatso, 1984). Shamatha meditation is about learning to concentrate and to stay focused on the object of meditation (Traleg Rinpoche, 2005).

But in the beginning of this training, the attention easily gets distracted away from the object of meditation, so our mind doesn't stay focused (Traleg Rinpoche, 2005). *Awareness* makes us recognize these distractions (Traleg Rinpoche, 2005). Distraction from the object of meditation could be caused by agitation or by dullness, drowsiness or sleepiness of the mind (Traleg Rinpoche, 2005). In order to detect these distractions, one needs to hone the ability to monitor the quality of the attention (Wallace, 2006b). While the main force of the awareness is directed to the meditation object with mindfulness, this needs to be supported with the faculty of introspection, in which the awareness is not only directed to the meditational object but is broader than that (Wallace, 2006b). Awareness, or introspection, in this sense refers to a mental act. This allows for the quality control of the attention, monitoring the state of one's mind, enabling the practitioner to swiftly note when the mind has fallen into either excitation or laxity (Wallace, 2006b). Mindfulness and introspection go hand in hand (Wallace, 2006b). Introspection supports the whole process, by keeping an eye on whether the mind is characterized by agitation or laxity (Tenzin, Gyatso, 1984). During the initial stages of shamatha, however, one especially focuses on developing one's mindfulness. When mindfulness as a skill has been developed, one can, in the later stages of shamatha meditation focus on developing awareness as a skill.

When through introspection or awareness, we detect the mind to be distracted from its object of meditation by mental agitation or dullness, we should apply *mindfulness* (Traleg Rinpoche, 2005). Mindfulness in this sense, means that we should remember to return to the object of meditation, once we detected the mind to be distracted (Traleg Rinpoche, 2005). If we become distracted from meditation, we should try to redirect our mind to our meditation object (Traleg Rinpoche, 2005). This is something we will learn while practicing meditation, but there are some guidelines in this respect (Traleg Rinpoche, 2005). These guidelines are about knowing how much effort one should put in mindfulness and awareness (Traleg Rinpoche, 2005). It are guidelines which should give us some idea, when we are actually interacting with the mind as environment, how we can fine-tune our mental sense on the environment. If the mind is characterized by dullness, we should put more effort, while if agitation is detected in the mind, one should put less effort in applying mindfulness and awareness (Traleg Rinpoche, 2005).

The mind is distracted by *mental agitation* if there is excessive desire and craving for all kinds of things coming up (Traleg Rinpoche, 2005). These tend to disturb the mind. Our natural reaction to this state of mind is, trying to put more effort to stay with the object of meditation (i.e. mindfulness) in order not to get distracted (Traleg Rinpoche, 2005; Wallace, 2006b). This is however exactly not what we should do (Traleg Rinpoche, 2005). If we put more effort in mindfulness and/or awareness, we tensen up the mind and consequently the mind becomes even more agitated (Traleg Rinpoche, 2005). If one detects agitation in the mind, one should use the loosening method with respect to mindfulness and awareness instead of putting more effort in mindfulness, trying hard to keep the mind with the object of meditation. We should relax mindfulness and awareness (Traleg Rinpoche, 2005; Tenzin, Gyatso, 1984).

This means we should try not to pay too much attention (Traleg Rinpoche, 2005). There are also more subtle forms of agitation, by which the mind is not completely pulled away from the object of meditation, but somewhere, in the corner of the mind there are still thoughts coming up (Tenzin, Gyatso, 1984). This is the sort of distraction one should learn to perceive by fine-tuning one's awareness (Tenzin, Gyatso, 1984) during the later stages of shamatha (see below).

The mind is characterized by *dullness, laxity or lethargy* when it lacks clarity, while in meditation the mind has to be alert and engage with the object of meditation (Traleg Rinpoche, 2005). In this case the mind is not distracted by disturbing thoughts, but the mind is not engaging in a clear way with the object of meditation, because of dullness or a foggy mind (Traleg Rinpoche, 2005; Wallace, 2006b). This manifests as having heaviness in the mind (Traleg Rinpoche, 2005) or falling asleep. If the mind is characterized by this, it means the attention is in deficit (Wallace, 2006b). There are different forms of laxity of the mind: coarse and subtle laxity (Tenzin, Gyatso, 1984). If one is subject to coarse laxity the mind implodes and the object of meditation fades (Tenzin, Gyatso, 1984). In the case of subtle laxity, the clarity with which the object of meditation appears to the mind is less (Tenzin, Gyatso, 1984). If one detects dullness, laxity or drowsiness in the mind, one should use the tightening method with respect to mindfulness and awareness (Traleg Rinpoche, 2005). This means that one should try to make mindfulness and awareness stronger (Traleg Rinpoche, 2005). When the mind is dull or drowsy, this means there is no mental tension and we should tighten up (Tenzin, Gyatso, 1984), trying to take more interest in the object of meditation. One should arouse one's attention (Wallace, 2006b). We should also apply awareness and become aware of our state of mind (Traleg Rinpoche, 2005).

Developing mental stability and clarity

Agitation is easier detected then dullness and sleepiness. In the initial stages of shamatha (when awareness hasn't been fully developed) agitation is the main problem. Once mindfulness has been well developed, in the later stages of shamatha, dullness as a problem becomes more manifest. This gives us the opportunity to develop awareness. If we are less aware, then it is more difficult to detect dullness (Traleg Rinpoche, 2005). The tightening or loosening methods with respect to an agitated or dull mind are a moderate activity: if one gets a little excited, one lets go a little more, while one tightens the mind a little more, when the mind would tend to get too loose (Tenzin, Gyatso, 1984). Normally when the untrained mind has too much *clarity*, this leads to agitation (Traleg Rinpoche, 2005). When the untrained mind has too much *stability*, this leads to dullness and mental passivity (Traleg Rinpoche, 2005). During shamatha practice, one is trying to cultivate a mind which is *clear*, but not agitated on the one hand and *stable*, but not passive on the other hand (Traleg Rinpoche, 2005). One refines the attention by means of enhancing attentional stability and vividness, counteracting the mind's tendencies toward alternating attentional excitation and laxity (Wallace, 2001).

The practice requires an alert mind (Wallace, 2006b). Mental clarity is cultivated, by practicing awareness (Traleg Rinpoche, 2005). The cultivation of vividness, should however not coincide with the decrease of stability (Wallace, 2006b). The mind should be alert, but in a balanced way, it should not be too tense, which leads to mental agitation (Wallace, 2006b). Otherwise the vividness will be accompanied by

mental agitation and one thus loses one's mental stability. One should be alert, but relaxed. On the other hand the mind should not be too lax neither, because then one risks falling into mental laxity and loses one's alertness. Balancing the mind includes balancing the effort exerted in the practice with relaxation.

The sequence of shamatha training begins with relaxation in order to calm the mind down while cultivating mental stability or stabilizing the attention and finally maintaining this relaxation and stability while gradually increasing vividness, without the mind getting too aroused, falling back into mental excitation. This is a process of fine-tuning. The analogy of meditation as a tuning, rather than playing a stringed instrument is often used in this respect (Varela *et al.*, 1993). The instrument must be tuned neither too tightly nor too loosely (Varela *et al.*, 1993). If one is going too far in arousing the attention, one's mind will get agitated, so that one has to start all over to overcome this and stabilize the attention again. Then one should not go too far into this neither, since one risks mental laxity. Once the attention is stabilized, again one can try to arouse the vividness a little bit less than before. It is a process of trial and error. That is inherent in the meditation and it shouldn't discourage meditators that they are not doing well. It is part of the training.

This demands a very skilled way in applying mindfulness or awareness, which can only be learned by doing it. One cannot read about it and then apply it in reality. This process of fine-tuning and training the mind needs to be learned by interacting with the mind and trying out the application of mindfulness and awareness and by this experience, seeing what effect these mental actions resort in the mind. Just like one can learn pot-baking only by doing it with our hands and not by reading about it, the mental sense has to be trained by interacting with the mind itself, and not just by reading about it and later apply it in daily life, just by thinking about it. In meditation one learns to fine-tune the mind in such a way, which is about achieving these skills. Learning how to drive a car is asking a lot of effort, but once one has learned the skill, one is doing it naturally. One cannot read about how to drive a car, and then one day, when one needs to drive a car, for the first time bringing what one had read before, into practice by getting in a car for the first time. One needs a lot of trial and error to learn the 'how to'. This is exactly the case with meditation.

Attentional stability is a measure of how many of the ascertained impulses of awareness are focused on our object of the meditation (Wallace, 2006b). Normally our mind is spread out and with shamatha we bring that mind in (Traleg Rinpoche, 2005). For example if we have fifty moments of ascertaining cognition per second and all fifty are focused on the tactile sensations of breathing during meditation, this indicates a relatively high degree of stability. An untrained mind, which is usually not characterized by this attentional stability has a high proportion of those fifty ascertaining moments scattered in different fields of perception (Wallace, 2006b).

For example when one's eyes are closed during the meditation and one hears birds flying over, and in the same time the mind creates a mental, visual image of the birds in the head. In this case, the attention pervades both the hearing and the mental environment. The conceptual mind is said not to be able to distinguish between what has been created by the mind and perceived by the mental sense and what has been perceived by the auditory consciousness. In this case maybe 10 ascertaining moments of cognition are directed to the sound, 10 ascertaining moments are directed to the mental image, 5 to the breath as object of meditation

(which means that one is already pretty advanced in the meditation, since one didn't completely lose track of the object) and 10 ascertaining moments are directed to my itching back which I am scratching (15) in the mean time.

If one is advanced in meditation one will be able to gain more and more attentional stability and more and more ascertaining moments of cognition per second will become directed to the object of meditation. Depending on the stage of shamatha one has reached, one will be able to hold the object of meditation in the centre of the attention (for example maybe 40 ascertaining moments) and some thoughts might still appear to the periphery of one's attention, which is consuming maybe 10 ascertaining moments of cognition. In that case, one has reached a good deal of mental stability.

In the beginning phases of shamatha it is especially about calming the mind down and getting control over the coarse forms of excitation, while gathering the mind together, to that one point, namely, the object of meditation. In the later phases of shamatha meditation, when one has attained already a great deal of mental stability, one will try to increase the vividness of the attention. This means that we will be able to experience a higher density of moments of ascertaining consciousness each second, from 50 to 100 per second, for example (Wallace, 2006b).

Balancing the mind

In this way during the different stages, one has to try to find a balance, one has to try to fine-tune the attention. However this practice and fine-tuning of the attention will also have an influence on the environment, namely the mind. During the different stages of shamatha, the quality of the mind will change. While in the beginning the mind is extremely hyperactive, later, the mind will calm down, but become more subject to laxity. And in response to the change of the quality of mind, one will have to adapt one's attention and fine-tune it to this new environment. This is where we can see clear parallels with Gibson's theory of fine-tuning the perceptual systems and Ingold's application of this theory to many different skills, mostly involving the body. Ingold applies Gibson's theory for example on the skill of pot baking, or hunting, in which the person fine-tunes one's attention onto those particular environments, such as the forest or the clay in one's hand. Because of the fine-tuning of the perceptual systems on those environments and because of the consequent adaptation of the actions of the individual, the environment changes. The hunter runs after the trails of an animal, the clay starts to receive the forms of a pot. Because of this changing environment, one has to keep the perceptual systems alert to again adapt one's actions to the new environment. This is a continuous process of fine-tuning the perceptual system to the environment. For example, when one hears a noise in the bushes, one turns the head and holds the breath, in order to hear and see what is going on there.

This is exactly also the way it happens during meditation. One is constantly engaging with the environment of the mind. Using an object of meditation as aid or a tool which helps to gather the mind together, which is usually spread out and jumping from one thing to another. This engagement with the object of meditation has to help the person to focus his attention. This will influence the mind, in the way, that in the beginning one becomes aware of the excitation of the mind. This is the environment one has to work with during the first stages of shamatha. One has to

adapt his attention to the movements one detects in the mind. If the mind is too agitated one has to relax and turn back to the object of meditation, using mindfulness. If the mind is falling asleep, one should arouse one's attention. Because of this fine-tuning one learns to master the skills of mindfulness (especially in the first phases) and one's awareness will be more and more directed to the object of meditation, rather than being spread out all over the place.

During the later phases of shamatha the excitation is calmed down, but still present. This means that the environment of the mind has slightly changed, due to one's actions (cf. the clay which is starting to receive the form of a pot in pot baking). In the later phases however, it is said that dullness and laxity manifest in the mind. Again the mind has to learn to detect this, through introspection and awareness and adapt ones actions to this new environment: one has to arouse the attention and cultivate one's awareness. In this phase, one still uses mindfulness, but awareness becomes more important. Because of this enskillment, and the mastering of the attention as a skill, again the environment of the mind will change. Coarse laxity will have diminished and the mind now has to overcome subtle agitation and laxity. Again one has to learn to attune one's perceptual system to this sort of mind. And like that one keeps on practicing and mastering the skills of mindfulness and awareness, one is learning to fine-tune one's attention. In order to demonstrate this fine-tuning skill, we will go over the different stages of shamatha again, while highlighting the connection between the quality of the mind as environment and the mental actions as a response to this changing environment.

Fine-tuning the perceptual system to the mental environment

This balancing of the mind is comparable to the fine-tuning of the perceptual systems during other skills, as described in chapter 2 of part II. The actions, the mind performs through applying mindfulness, going back to the object of meditation, or applying awareness, being aware of distractions, ... are not just the implication of an instruction given. They are not like the mechanical repetition of the metronome, for they are set up through the continual sensory attunement of the practitioners movements of the mind to the state of mind as environment with which he is engaged, while in the mechanical execution, technical operations are performed against a static background, rather than in a world in motion (Ingold, 1999). Is the mind agitated, or rather lax, in a coarse, medium or subtle way? During shamatha one learns to be attuned to the state of mind through awareness and introspection, which is furthermore giving directions about what actions the mind should perform. The activity of the mind will be adapted to the attunement to the mind as environment. If the mind is subject to coarse excitation, one will relax the mind and bring the mind back to its object of attention (mindfulness). If the mind is subject to subtle laxity, one will try to arouse the attention slightly, but not too much in order to perceive the object a little more vividly and overcome the laxity. The movement in an environment means tuning one's own movement in response to the movement in one's surroundings, as Ingold and Kurttila (2000) put it.

This description of the training of the attention as a skill parallels Ingold's description of many skills, in which he has also emphasized the importance of sensory attunement and the adaptation of the practitioners movements to the movements in the environment, be it a deer running in the forest or the pot which is starting to receive some shape (Ingold, 1999). With Ingold however it is especially about the

attunement of the individuals motor responses to the multiple external rhythms, while in the case of meditation we are not talking about the actions of the body, but the actions of the attention. Also with Ingold the attunement of the motor responses were dependent on the work of perception, taking note of the movements in the environment. Also in meditation one is using perception. In this case, awareness is the mental faculty which is monitoring the state of the mind as environment. But awareness is also an action the mind is performing in reply to the information coming in (for example the mind is subject to dullness).

Meditation is thus a very special case, because we see the mind not as one mind, but we see the mind both as environment, as well as the one performing actions, as well as the perceptual system which is pervaded with attention flowing through the entire input-output loop as in Gibson's (1979) conception of perceptual systems. This stands *in sharp contrast with the opinion that the instructions are ideas of a cognitive kind*, which need to be simply implemented into one's life, independent of one's state of mind and with the meditator as a passive implementer, rather than someone who is actively trying to gain knowledge of one's state of mind as environment in order to adapt one's activity to it.

We can also make the comparison with Ingold's Koyukon hunter, who notices significant features of the landscape of which the Western observer is not aware (Ingold, 2000c). Ingold ascribes this to the fact that the perceptual system of the hunter is attuned to picking up this kind of information, something an unskilled observer simply fails to attend. Also in meditation it is the case that the untrained mind is not able to keep one's attention with a chosen object for longer than a few seconds, without the mind wandering off. We cannot imagine that it would be possible to slow down the stream of thoughts in such a way, that it would even be possible that the mind is for a few seconds, let alone minutes, free of thoughts! Just like it is conceptually very difficult to understand what it means like to have a mind in which thoughts do appear, but one is not the thinker of the thoughts, one simply observes them pass by. The explanation here is not that the Buddhist has implemented a certain theory in his life, but that he has been able to train his attention in such a way, that it won't get swept away by the thoughts coming up. One has trained oneself not to become fixated and attached to thoughts, because of constantly returning back to a chosen object of attention. Thereby one's attention has become stable and is no longer subject to the habit of fixated on thoughts and this has undone the narrowing of the consciousness onto these thoughts. That is why one is able to observe thoughts or emotions from a broader perspective, without getting swept away by them. All this is due to habituation and training. Not to the implementation of a theory.

We should not neglect the importance of the environment in the training, namely the state of mind one finds himself in. One should neither neglect the importance of the interrelation between environment and perception, namely our education of the faculty of awareness. This faculty is also trained in such a way that one becomes able to distinguish between direct perceptual consciousness, without the overlay of conceptual consciousness. One also learns to distinguish in a non-conceptual way between the mental images directly perceived by the mental sense (without the conceptual consciousness further elaborating on that, which keeps the train of thoughts going) and the images perceived from for example the visual consciousness. In this way one develops a finely honed perceptual ability, which will

help the person in daily life to distinguish between what is part of reality, or what is imputed by one's own mind on that reality. For example one sees a person who is not saying "hello" to us. We will be able to perceive the fact that the person looks worried and his attention is not there, rather than making the interpretation that that person is feeling too important to say "hello" to you. This faculty of distinction will be further used in vipassana training (see below).

In this case, Buddhism is definitely not only about convictions, beliefs, ideas or theories –which are conceptual in nature, which one is carrying in its head. The skilled practitioner doesn't consult representations in one's head, according to Ingold (2000f), but the world surrounding him, the mind in the case of meditation. It is about the fine-tuning of a perceptual system rather than about consulting representations in the head (Ingold, 2000d). We don't only see meditation as a skill, as which has already become widely accepted, but we also see meditation as the fine-tuning of the mental sense (Wallace, 2006b).

As we have explained above, Buddhism recognizes the mental sense as a sense which is perceiving both direct perceptions from the perceptual consciousness as objects from the mental consciousness, such as dreams, thoughts, emotions, ... Usually our attention is jumping from one field to another, being unable to distinguish between what aspect of our experience of reality is coming from the visual conscious, and which one is imputed by our conceptual consciousness. In shamatha meditation we train this faculty of attention and refine the mental sense. Where an untrained mind is considered to be mostly unable to perceive the environment directly, unobscured by conceptual layers, the trained mind is considered to be able to distinguish between those and have a clearer view on reality (Austin, 1998).

What is perception here exactly? Also here we can find answers with Ingold. According to him and according to ecological psychology (Gibson, 1979) perception is the whole process of the attunement of the individuals motor responses to the multiple external movements in the environment. We replace the motor responses by the responses of the mind and the movements of the environment by the movement the mind is making (agitation, laxity, ...). The mental actions will be about loosening up, or arousing the attention, tightening the mind versus relaxing the mind in a more or a less way. Will one try to pay more attention to mindfulness: letting go of the thought and returning back to the object of meditation. Or will one apply awareness and give some attention to the subtle mental excitation, thereby patching up the hole which appeared in the awareness of the object, by being aware of the thoughts, or other subtle movements of the mind, such as stillness which has turned into subtle laxity or dullness.

In order to be able to study Buddhism, one has to adapt one's theory in order to be able to take these non-conceptual aspects up in one's theory. We have tried to do this with Ingold and Gibson, who showed us the way, while theorizing about non-conceptual, but bodily skills. We have applied their theory and concepts in meditation as a non-conceptual form of learning and the role the tradition plays in this, as an aid to perceiving (Gibson, 1979).

2.2.3 The nine stages of shamatha

The shamatha path has been described by many different meditation teachers in Buddhism. Shamatha meditation is considered to be a training which should lead to a state of mind, called shamatha. The path towards this state of mind is characterized by nine stages (Tenzin Gyatso, 1984). These nine stages are a sort of map of shamatha meditation (Traleg Rinpoche, 2005). The successful accomplishment of each stage is determined by specific criteria (Wallace, 2006b). It is supposed to give directions on how to overcome obstacles as one is progressing through the stages of shamatha (Traleg Rinpoche, 2005). Through the practice, one becomes skillful in how to use the directions which are given through the nine stages (Traleg Rinpoche, 2005). It is further through ones own experience, that one learns how to engage with the mind (Traleg Rinpoche, 2005). Through the nine stages one learns how to deploy mindfulness and awareness and becomes skilled in using them. In the beginning of the nine stages, one should use and develop mindfulness, while later in the nine stages this becomes something natural to do and one has to pay more attention to developing awareness as a skill. In the beginning we learn how to tame the turbulence in the mind and how to calm the mind down. However meditation does not only seek to have a calm state of mind, but also awareness (Traleg Rinpoche, 2005). We need a presence of mind that will allow us to have knowledge of how the mind works (Traleg Rinpoche, 2005).

To start shamatha meditation, one can sit on a cushion, and have a comfortable posture. In order to attain the first stage of shamatha one should draw the attention inwards (Traleg Rinpoche, 2005). Normally the attention is directed outwards and we have a diffused mind. Now we bring the mind back (Traleg Rinpoche, 2005). We tune out on the other sensory impressions and don't allow ourselves to become distracted (Traleg Rinpoche, 2005). One is intended to bring the mind to the here and now. However the slightest noise, the slightest movement outside or inside the mind will distract us (Wangyal Rinpoche, 2001). That is why we are using an object to hold on to, with the attention (Wangyal Rinpoche, 2001; Tenzin Gyatso, 1984). One could for example focus on the sensory sensations of the breath at the level of the nostrils and try to keep on being aware of these (Wallace, 2001). One could also use a visual object to focus the attention on. One could also use a mental object such as a visualisation of a Buddha or even only a point in the mental space in front of us. The initial basic instruction of shamatha is that once you notice you have been distracted by thoughts, you direct your attention back to the object of meditation (de Wit, 2003).

Stage 1: 'Directed Attention'

In the first stage of shamatha, one has to learn how to focus one's attention. This is asking a lot of effort (Wangyal Rinpoche, 2001). The beginner will first be confronted with the usual talking in his mind, something which otherwise hides in the business of the day (Wallace, 1993; Tenzin Gyatso, 1984). Our mind is still subject to agitation and laxity, so we have little control over what happens in our minds (Wallace, 2006b).

In stage one it is difficult to become aware of what is going on in the mind (Traleg Rinpoche, 2005). One is dragged along in the chaos of the mind. The mind is not capable of staying with the object of meditation (Tenzin, Gyatso, 1984). It becomes

apparent how chaotic our minds are and how turbulent and fragmented our attention is (Wallace, 2006b). It looks like as if it only gets worse (Tenzin, Gyatso, 1984). However this state of mind was already present before, but one did not realise this, since the mind was not directed inwardly (Tenzin, Gyatso, 1984). Also the beginner to zazen soon discovers what ordinary thinking is like: an agitated motion of proliferating associations (Austin, 1998). Each thought sets off a chain reaction with incessant chatter of thoughts (Austin, 1998). It is normal that the beginner's mind is wandering away from the object of meditation, without even noticing it. This is often a source of frustration and one has the feeling that one is failing in the meditation. However this is normal for the untrained mind and part of the shamatha path and is described in the 1st stage of shamatha. It is the result of habit and these habits can be broken through mindfulness (Varela *et al.*, 1993). The latter means that time and again when one notices the attention has started to wander off, one directs the attention back to the object of meditation (de Wit, 2003). This is called mindfulness. One shouldn't get upset when one notices the mind has been pulled away from the meditation object, but be happy to have noticed it and return back to the object with the attention (Wallace, 2006b). This is a simple instruction, but very effective to train the attention (de Wit, 2003). We are used to let the mind wander away on the stream of our thoughts (de Wit, 2003). In this way time and again we learn to let go of the fixation on and preoccupation with thoughts, by taking the attention away from the thought and placing it back on the meditation object (de Wit, 2000). As the meditator again and again interrupts the flow of discursive thoughts and returns to the present, using his object of meditation, there is a gradual taming of the minds restlessness (Varela *et al.*, 1993). In this way meditation brings the attention to the here and the now and draws it away from compulsory thinking (Wallace, 1993). In order to enter into the first phase of shamatha, one should use great effort in applying mindfulness (Traleg Rinpoche, 2005). One is said to have reached the first stage of shamatha once one is able to place the attention on the chosen object of meditation for even a second or two (Wallace, 2006b). In stages 1 and 2 there is a lot of dullness and excitation in the mind (Tenzin, Gyatso, 1984). Only once in a while the mind can stay with the object of meditation (Tenzin, Gyatso, 1984). Until the third stage on, one is entering in the meditative state with difficulty (Traleg Rinpoche, 2005). The first stages of shamatha are more related with diminishing the disturbances of the mind and learning how to concentrate the mind. When we are experiencing rest, this is more related to calmness then concentration (Traleg Rinpoche, 2005).

Stage 2: 'Continuous Attention'

You are said to have reached the 2nd level of shamatha, once you are able to focus on the object of meditation for a little longer: about one minute (Wallace, 2006b; Traleg Rinpoche, 2005; Tenzin Gyatso, 1984). In the second stage one is able to concentrate on the object, but not for a long time (Traleg Rinpoche, 2005; Tenzin, Gyatso, 1984). One is easily distracted and it is difficult to regain stability (and stay with the object), once distracted (Traleg Rinpoche, 2005). In this stage, the 'power of thinking' is used as a tool (Wallace, 2006b: Tenzin Gyatso, 1984; Traleg Rinpoche, 2005). This means that one tries to sustain interest in the object using thoughts which bring the attention in the direction of the object of meditation and make that the attention is not scattered all over the place (Traleg Rinpoche, 2005). One can for example count the breaths (Wallace, 2006b).

Most of the time, the mind is still caught up in wandering thoughts and sensory distractions (Wallace, 2006b). Out of sheer habit, unintentional thoughts are bound to cascade through the mind like a waterfall (Wallace, 2006b). The main point of such attentional training is not to stop thoughts from arising, thoughts are bound to arise (Wallace, 2006b). One should simply do one's best not to get carried away by them. But time and again you will lapse back into coarse excitation and at this stage it is still difficult to bring the mind back to the object of meditation, using mindfulness (Wallace, 2006b; Tenzin Gyatso, 1984). In the second phase of the practice of shamatha the enskillment of mindfulness is emphasised (Traleg Rinpoche, 2005). This is the phase in which one has to continuously place the attention back to the object of meditation (Tenzin, Gyatso, 1984). You can remain centred for a sustained period, without completely losing track of the object of the attention, but time and again you will still lapse back into coarse excitation, completely forgetting about the intended object of attention (Wallace, 2006b). The emphasis lies on mindfulness rather than awareness (Traleg Rinpoche, 2005). We shouldn't forget to stay with the object of meditation (Traleg Rinpoche, 2005). One should do this from a relaxed state. The stability of the attention can only emerge from a relaxed mind (Wallace, 2006b). So one shouldn't do this in a too forced and tensed way, trying too hard or putting too much effort. One should cultivate attentional stability without losing this sense of ease (Wallace, 2006b). On the other hand one should not relax in such a way, that one becomes spaced out or dull (Wallace, 2006b). During this stage, the meditator has to look for a balance and fine-tune the attention on the object of meditation. The meditator will often go into one extreme of sleepiness or becoming spaced out, or into the other extreme of being overwhelmed with too much thoughts, because he is trying to apply mindfulness in a very rigid way. He needs a lot of practice in order to get the feel of this by himself.

Stage 3: 'Resurgent Attention'

In stage three it becomes easier to regain the state of concentration after being distracted (Traleg Rinpoche, 2005; Tenzin Gyatso, 1984). From this stage on, it is more easy to enter in the meditative state (Traleg Rinpoche, 2005). This is because our mindfulness as a skill has become more developed (Traleg Rinpoche, 2005; Tenzin Gyatso, 1984). There are still lapses where one completely forgets the object of meditation, but one quickly recognizes them (Wallace, 2006b). In this stage, we don't only apply mindfulness but also start applying awareness. This means that we don't only try to stay with the object of meditation, but one recognizes and is aware of the distractions, in this way patching up the holes in the attention (Traleg Rinpoche, 2005). In order to attain the 3rd and the 4th stage of shamatha we use the 'power of mindfulness' (Traleg Rinpoche, 2005). If we practice regularly we will cultivate mindfulness as a skill and the fruit of this training, is that the ability to be mindful will increase (Traleg Rinpoche, 2005). In that case, mindfulness has developed from the practice (Traleg Rinpoche, 2005). In stage three we are able to elongate shamatha calmness and concentration, because mindfulness as a skill starts to become more developed (Traleg Rinpoche, 2005). From this stage on until the sixth stage, the mind is less disturbed because of the mindfulness we have developed during the practice (Traleg Rinpoche, 2005).

From stage 3 to 7 one is said to enter in a meditative state in an 'interrupted way', this means that next to periods of concentration, there are still periods of distraction

(Traleg Rinpoche, 2005; Tenzin Gyatso, 1984). We will have to continue to use mindfulness in a rigorous way, next to applying awareness (Traleg Rinpoche, 2005).

The periods of disturbance are longer than the periods of calmness (Traleg Rinpoche, 2005). Even if stability of the attention is present, this still gets interrupted by agitation and dullness (Tenzin, Gyatso, 1984). Because experiences of mental agitation, dullness and sleepiness are interrupting the meditation during these stages (3-7), one has to maintain mindfulness and awareness in a continuous way, (Traleg Rinpoche, 2005). Coarse excitation is still the predominant problem during the third stage of attentional development (Wallace, 2006b). In order to deal with this, we apply mindfulness, trying to stay with the object of meditation (Traleg Rinpoche, 2005). One has to place the attention again and again on the object of meditation (Tenzin, Gyatso, 1984). The ability to regain attention after distraction, becomes easier (Traleg Rinpoche, 2005). The attention gradually stabilizes (Wallace, 2006b). Next to that we also apply awareness, trying to be conscious or aware of the distractions (Traleg Rinpoche, 2005). You are able to quickly recognize them and patch up the holes in the continuity of the attention (Wallace, 2006b). While trying to become aware of that distraction and paying some attention to it, we seal the gap which had occurred in our attention (Traleg Rinpoche, 2005).

Stage 4: 'Close Attention'

In the fourth stage of shamatha, one has reached a point in which one no longer completely forgets about the object of meditation (Wallace, 2006b; Tenzin Gyatso, 1984). Your attention can no longer be drawn involuntarily away entirely from the object (Wallace, 2006b). One may have experienced glimpses of this attentional stability intermittently before actually achieving this stage, but now it has become normal (Wallace, 2006b). This is why it is said that the power of mindfulness has been achieved. It means that the faculty of maintaining attention without forgetfulness or distraction on a familiar object has been developed in already a good way (Wallace, 2006b).

In stage four there are still disruptions in the concentration (Traleg Rinpoche, 2005). Sometimes there is calmness, sometimes disturbance (Traleg Rinpoche, 2005). The periods of calmness have become longer then the periods of disturbance (Traleg Rinpoche, 2005). Gradually we may be able to get some sort of control on the coarse mental distractions (Traleg Rinpoche, 2005). In this phase the attentional stability may still be flawed by a *medium* degree of excitation (Wallace, 2006b), we may still become distracted with subtle forms of distraction (Traleg Rinpoche, 2005). The mind will have calmed down and will no longer be *extremely* agitated by thoughts (Wallace, 2006b). And even if there are thoughts coming up, the mind isn't really disturbed because of our enskillment in mindfulness (Traleg Rinpoche, 2005). The agitation has clearly calmed down and thoughts have slightly lost their power to draw the attention completely away from the object of meditation, towards the contents of the thoughts. This means that one doesn't completely lose track of the object of attention, but involuntary thoughts do occupy the centre of attention and the meditative object is displaced to the periphery (Wallace, 2006b). In reaction to this we should again try to practice mindfulness and awareness (Traleg Rinpoche, 2005). For the subtle mental excitation one has to practice mindfulness and try to keep the mind with the object of meditation. Next to that, one is also challenged to

arouse greater vividness of the attention (i.e. awareness) (Wallace, 2006b) to become aware of the subtle forms of excitation.

Next to this *medium* mental agitation, one is now also confronted with a lax and dull mind (Wallace, 2006b) because the mind is not used to be characterized by this kind of stability. Usually the mind grasps onto thoughts, and other (mental) objects. Now the mind is characterized by stability it reacts by fading away. One is thus confronted with coarse laxity of the mind (Wallace, 2006b). In order to counteract this, one should arouse one's attention (Wallace, 2006b). From this stage on, one is also cultivating the vividness of the attention (Wallace, 2006b). One should tighten up the mind and try to arouse more interest in the object of meditation. One should also try to detect this laxity through awareness. If we continue to practice in this way, we will reach the fifth stage (Traleg Rinpoche, 2005).

Stage 5: 'Tamed Attention'

In the fifth stage, there will still be thoughts arising, but they flow like a river moving smoothly through a gorge and have less power to disturb the mind (Wallace, 2006b). From this stage on mindfulness is still important, but awareness becomes more important: trying to recognise when thoughts, emotions, or laxity appear in the mind (Traleg Rinpoche, 2005). When emotions and thoughts arise, but we didn't notice them, this means we are not in a meditative state, so the emotions disturb the meditative state (Traleg Rinpoche, 2005). If we can detect the movements in our minds by awareness, one doesn't deviate from one's meditational state (Traleg Rinpoche, 2005). This means the thoughts have not interrupted the meditative state. Thoughts have become no more than events in the mental domain, but we didn't fixate on them (de Wit, 2000). We can recognise our distractions, such as strong emotions, and we can detect any kind of movement in the mind (Traleg Rinpoche, 2005). Even when emotions and thoughts arise, one is aware of it and is not brought out of the meditative state (Traleg Rinpoche, 2005). In contrast, when there is no awareness, emotions and thoughts arise and we don't notice them, which means we are not in a meditative state (Traleg Rinpoche, 2005). In that case the emotions and thoughts disturb the meditative mind (Traleg Rinpoche, 2005). That is why, in stage five, even if thoughts and emotions arise, they are less disturbing (Traleg Rinpoche, 2005). From this stage on mindfulness is still important, but less of an issue (Traleg Rinpoche, 2005). In this phase awareness becomes more important (Traleg Rinpoche, 2005). One is monitoring the quality of the attention (Wallace, 2006b). This is also called the 'power of introspection', because its function is to investigate and repeatedly examine the state of one's mind (Wallace, 2006b).

In this phase you have the task of recognizing and counteracting coarse and medium laxity. If dullness sets in, one should arouse one's awareness. If we don't, the attention succumbs to dullness, which causes it to largely disengage from its meditative object (Wallace, 2006b). This is a peaceful state of mind and may be mistaken for the attainment of shamatha itself (Wallace, 2006b). But this is not the case, because shamatha, is characterized by a degree of stability far beyond that achieved at this stage, and also by an extraordinary vividness that one has hardly begun to develop at this point in the training (Wallace, 2006b). The attention is characterized by medium laxity if one's attention is focused on the object of meditation, but without much vividness (Wallace, 2006b). You counteract laxity by arousing the attention and taking a greater interest in the object of meditation

(Wallace, 2006b). Next to that there is still a persistent problem of medium excitation, which arises when involuntary thoughts occupy the centre of attention while the meditative object is displaced to the periphery (Wallace, 2006b). Here it is our task to determine the proper pitch of attention. If you arouse the mind too much, in your efforts to remedy laxity, it will easily fall into excitation, if you relax too much, you will likely succumb to laxity (Wallace, 2006b).

Stage 6: 'Pacified Attention'

Stage six, is finally achieved after thousands of hours of training (Wallace, 2006b). After the 5th stage we have a sense of calmness and the disturbances are less disturbing (Traleg Rinpoche, 2005). The mind is less agitated by coarse agitation or laxity, but is still characterized by medium forms of laxity and subtle forms of excitation (Wallace, 2006b). You are challenged to detect this and thus refine the skill of awareness. You need to be able to detect subtle excitation: involuntary thoughts appear at the periphery, like faintly hearing another station, while the quality of attention one is seeking here, is like a clear channel, unsullied with extraneous noise (Wallace, 2006b). Involuntary thoughts seem to be less weighty in that they are less able to pull your attention after them (Wallace, 2006b). One has become able to see them, rather than becoming automatically lost in them (Varela *et al.*, 1993). This means that the thoughts will be present in the mind, without you being the thinker of them. They pass by like clouds in the sky and you simply watch the clouds passing by, without hopping onto them and being driven along with them. From this stage on, the mind is less disturbed by sleepiness or coarse laxity, but drowsiness and dullness are still disturbing the mind. However the drowsiness and dullness become less disturbing as well (Traleg Rinpoche, 2005). The mind should be aware of these states of mind (Traleg Rinpoche, 2005) and use the power of introspection in order to be on guard against some medium forms of laxity and excitation (Wallace, 2006b)

Stage 7: 'Thorough Pacified Attention'

In stage seven, involuntary thoughts still course through the mind, but are now only like a river slowly flowing through a valley (Wallace, 2006b). During the 7th and 8th stages, one is able to free oneself not only from the disturbing emotions and thoughts, but also of the subsidiary emotions and thoughts. All these become disabled (Traleg Rinpoche, 2005). Subtle excitation occurs only from time to time (Wallace, 2006b). If one is detecting subtle excitation, one should loosen up slightly (Wallace, 2006b).These subtle attentional imbalances are swiftly recognized due to your finely honed faculty of introspection and they are easily remedied (Wallace, 2006b).

During the seventh stage, our ability to concentrate has become more established (Traleg Rinpoche, 2005). Because of the 'power of effort', dullness no longer makes its appearance (Traleg Rinpoche, 2005). One has overcome medium laxity, but subtle laxity of the mind still remains (Wallace, 2006b). This means that the object of meditation appears to the mind, but the attention is slightly slack (Wallace, 2006b). If detecting subtle laxity, one should arouse one's attention (Wallace, 2006b).

At this point the mind is drawn inward and the physical senses become dormant (Wallace, 2006b). What remains is a state of radiant, clear consciousness (Wallace, 2006b).

Stage 8: 'Integration'

In stage eight, for the first time since the beginning of your training in shamatha, the flow of attention is not interrupted (Wallace, 2006b; Traleg Rinpoche, 2005; Tenzin Gyatso, 1984). One has become firmly skilled in awareness (Traleg Rinpoche, 2005). One has entered a 'meditative state without interruption' (Traleg Rinpoche, 2005). Mental laxity or agitation are no longer able to interrupt the continuous meditative state (Traleg Rinpoche, 2005). Only a little effort is needed at the beginning of each session (Wallace, 2006b). By mindfully attending to all kinds of perceptual appearances (material or mental) we can begin to distinguish between what appears to be our immediate sensory experience and our conceptual projections (Wallace, 2006b). Because of the 'power of effort' and the 'power of awareness', the contrasting factors of agitation and dullness can no longer disrupt the concentration and the concentration keeps on going uninterruptedly for the first time (Tenzin, Gyatso, 1984; Traleg Rinpoche, 2005; Wallace, 2006b). You can sustain a high level of focused attention, free of imbalances of even the subtlest laxity and excitation for at least three hours or so (Wallace, 2006b). Dullness, sleepiness, and mental agitation are unable to interrupt the continuous meditative state (Traleg Rinpoche, 2005). The ability of awareness has become firmly established (Traleg Rinpoche, 2005). The mind doesn't get disturbed, without having to apply mindfulness with so much effort (Traleg Rinpoche, 2005). The quality of the mind is stillness (Wallace, 2006b). What remains is a state of radiant, clear consciousness that is the basis for the emergence of all appearances to an individuals mind-stream (Wallace, 2006b). That is why the 8th and following stages are also called the advanced stages of illuminating awareness. You have now reached a high degree of unification of attention: wherever you direct your attention, your awareness is coherent and highly focused (Wallace, 2006b). To attain the 9th stage, one has to be able to integrate concentration and the peace of shamatha (Traleg Rinpoche, 2005).

Stage 9: 'One-pointed Attention'

Once one has reached the 9th stage, shamatha practice will become something natural to do and will no longer demand so much effort, as it was asking in the beginning (Tenzin Wangyal Rinpoche, 2001). In the ninth stage the mind is characterized by equilibrium or one-pointed concentration (Traleg Rinpoche, 2005). You are now able to maintain flawless attention, *effortlessly* and continuously for at least four hours free of even the subtlest traces of laxity and excitation (Wallace, 2006b; Tenzin Gyatso, 1984). This stage is called single-pointed attention, which means that one has attained a one-pointed concentration, together with shamatha peace of mind (Traleg Rinpoche, 2005; Tenzin Gyatso, 1984). It is no longer needed to apply mindfulness or awareness because of the 'power of deep familiarization' with the training (Tenzin Gyatso, 1984; Wallace, 2006b). Because of the power of deep familiarization with this training, the application of introspection and mindfulness are no longer needed (Wallace, 2006b; Tenzin Gyatso, 1984). To attain this stage, requires many months or even a few years of continuous, full-time

practice (Wallace, 2006b). The higher stages of shamatha practice will not be achieved by engaging in many brief retreats of weeks or a few months at a time. It requires long, continuous practice without interruption (Wallace, 2006b). The nine stages are concerned about overcoming the obstacles of agitation and dullness of the mind, until awareness has become actualised (Traleg Rinpoche, 2005). Finally you have reached a single-pointed attention, in which your awareness is coherent and highly focused (Wallace, 2006b). However if you discontinue the practice, you will find that laxity and excitation erode your attentional equipoise. They have not been irreversibly eliminated (Wallace, 2006b).

2.2.4 The shamatha mind as result

In the meditative stabilization of the ninth phase, one's mind is free of laxity and excitement and is able to engage with the object of observation one-pointedly. The mind is characterized by stability and clarity. However the attainment of such meditative stabilization is not the attainment of shamatha or calm abiding (Geshe Gedün Lodrö, 1998). Special pliancy and supreme joy and bliss must precede calm abiding (Geshe Gedün Lodrö, 1998). At the moment one actually attains shamatha, the mind becomes very supple (Tenzin Gyatso, 1984). When one has reached shamatha, it is said that a radical shift is taking place in consciousness. The mind has become so still and divorced from discursive thoughts that you feel you could remain in meditation uninterruptedly for months or even years (Wallace, 2006b). This is accompanied by a rush of bliss (Wallace, 2006b). The consequence of this is an enormous mental and bodily happiness and joy (Tenzin Gyatso, 1984). After this the joy starts to diminish slightly and one reaches a stable mental supplesse[14] (Tenzin Gyatso, 1984). Mental pliancy removes the functioning of assumptions of bad mental states, is joyful, happily engages its object of observation unimpededly and is characterized by a factor of lightness (Geshe Gedün Lodrö, 1998). This state of awareness is free of all sensory and mental appearances (Wallace, 2001). One shouldn't mistake this calm state of mind with an apathic state of mind, without any feelings (Dalai Lama, 1997). The clear light nature of awareness is naked, devoid of content and conceptual structuring (Wallace, 2001). Body and mind are characterized by an exceptional degree of pliancy, which makes them remarkably fit for engaging in all kinds of mental training and other meaningful activities (Wallace, 2006b). This will render the mind marvellously serviceable, capable of being used in a myriad of ways (Wallace, 2006b). Wherever the awareness will be placed, it is unwaveringly present, vividly clear, steady and sharply pointed (Wallace, 2006b). One no longer has to do shamatha meditation, shamatha has become part of the way the mind operates. It has become a way of being and is no longer a cultivation (Traleg Rinpoche, 2005). The experience of such a state of contentless mental

[14] This is said to be part of the first dhyana (Tenzin Gyatso, 1984). In Buddhism there are known four dhyana's, but this is not the time nor place to go deeper into that.

awareness is common to various schools of Tibetan and Indian Buddhist meditation as well as other non-Buddhist contemplative traditions (Wallace, 2001).

Some people mistake calm abiding for high levels of attainment, but this is not the case (Geshe Gedün Lodrö, 1998). By simply dwelling in this relative vacuum state of consciousness, one does not liberate the mind of its afflictive tendencies or their resultant suffering (Wallace, 2006b). When one attains calm abiding, these negative mental and physical states are not abandoned from the root but are only temporarily stopped (Geshe Gedün Lodrö, 1998). If one would stop meditating, all the ignorant views (like the existence of the self) and the conflicting emotions will come back (Komito, 1987; Dalai Lama, 2002). That is because during shamatha meditation they are only repressed and are not taken away from their root (Komito, 1987). Nevertheless, although the negative mental states are not removed from the root, their manifest function of interrupting meditative stabilization during shamatha is removed (Geshe Gedün Lodrö, 1998). A mind of calm abiding can suppress afflictive emotions but cannot abandon them (Geshe Gedün Lodrö, 1998). The shamatha practice of bare attention results only in the temporary alleviation of such mental afflictions as craving and hostility and no irreversible dispel of afflictions of the mind (Wallace, 2006b).

However, the goal in Buddhism is to liberate oneself from suffering. The development of this state of mind during shamatha meditation, is only a first step in this direction, but a very important and necessary step. The cause of suffering, according to Buddhism, is found in ignorance about the ultimate nature of reality. Namely, we mistake the relative reality (caused by the conceptual mind) to be the ultimate reality. To have insight (through insight meditation: vipassana) in the ultimate reality of the mind is considered liberating and gives the possibility to free oneself from negative conceptions (Traleg Rinpoche, 2004). In order to reach enlightenment one has to cultivate insight in oneself and reality through vipassana (Traleg Rinpoche, 2005).

What is than the aim of reaching this degree of concentration? The aim is to use this ability as a basis through which one gains insight (through vipassana meditation) in the selflessness of phenomena, by which the disturbances in the mind can be completely overcome (Tenzin Gyatso, 1984). We do shamatha to make the mind more hospitable for wisdom consciousness to have concentration (Traleg Rinpoche, 2005). The discipline of attention (the second main training) is a preparation for the discipline of insight (the third main training) (de Wit, 2003). The discipline of attention helps to give up perceptual ignorance, in the sense that because of this training, we notice things more quickly, we have become more alert (de Wit, 2003). While the disciplines of insight help us to overcome perceptual confusion (de Wit, 2003). Both Theravada and Mahayana traditions declare that the mind is irreversibly freed from mental afflictions only through the union of shamatha and vipassana (Wallace, 2006b). Persons who cultivate calm abiding but not special insight will gain the factor of stability but not that of an intense clarity, which could help overcome afflictive emotions (Geshe Gedün Lodrö, 1998). One must achieve an intensity of clarity in order for anything to serve as an antidote to ignorance (Geshe Gedün Lodrö, 1998). This mental clarity is further cultivated through special insight or vipassana (Geshe Gedün Lodrö, 1998).

2.2.5 Cultivating the true nature of the mind

Above we have first compared shamatha meditation with physical training, or learning to play the flute, with the attunement of an instrument rather than playing and so on. Often metaphors make things more clear than other conceptualisations. We used them to make different aspects pertaining meditation clear. But we don't want to stay stuck with one metaphor. Now we want to make clear how shamatha and other forms of meditation are not like the learning of any kind of skill. It is namely not about learning something we don't know before one has done the training. Meditational techniques are about skills which cultivate something which is originally already present inside of us. It is about cultivating the true nature of the mind.

In Buddhism it is said that the ordinary state of mind, or the obscured mind is a consequence of habituation, of using the mind in a certain kind of way. The practice involved in the development of mindfulness/awareness are virtually never described as the training of meditative virtuosity, but rather as the letting go of habits of mindlessness, (Varela *et al.*, 1993). In meditation we unlearn this way of using the mind in order to let the mind come back to its natural state. This unlearning may take training and effort, but it is a different sense of effort from the acquiring of something new (Varela *et al.*, 1993).

Meditation uncovers certain structures of the mind which are present under the superstratum of the mind. The latter being the psychological mechanisms known by Western academic psychology. It reverses these mechanisms, which through habit have become rigid structures. And through this, something more fundamental to these becomes manifest. By letting go of the thoughts, instead of the habit of the mind to chase after the thoughts, the natural activity of the mind to be alert and observant becomes apparent (Varela *et al.*, 1993). The practice is one of discovering the innate stillness and vividness of awareness, rather than developing something new (Wallace, 2006b). That is why the Buddhist assertions are treated by Buddhist teachers as discoveries rather than creeds or doctrines (Varela *et al.*, 1993).

The traditional metaphor is that of butter. Butter is already present in the milk, but to have butter, one first has to churn the milk (Tenzin Wangyal Rinpoche, 2001). We could see this churning as the time and again (when we recognize we have become distracted by our thoughts) bringing back the mind to the meditation-object. We cleanse the mind of pre-occupation (de Wit, 2003).

Shamatha meditation also has an effect on the mind as environment in the sense that it is slowing down the stream of thoughts (de Wit, 2003). This shows the reciprocal causality between our cognitive activities and the structures of our minds (Waldron, 2002). Normally when thoughts appear, habitually one grasps onto them and your attention is directed to the referents of the thoughts (Wallace, 2006b). For example if a mental image of our mother comes up, we start thinking about our mother. But when you simply observe the thought coming up without distraction or grasping, you non-conceptually note them as mental events in the present, without attending to their referents and without being either attracted to them nor repulsed by them (Wallace, 2006b). This means we will no longer fixate on the thoughts coming up in the mental domain (de Wit, 2000). Eventually we recondition the mind and become less fixated on these things (Traleg Rinpoche, 2005). Non-conceptuality

doesn't mean that one doesn't have thoughts but that one is not being disturbed by having thoughts which means that these thoughts will not be multiplying (Traleg Rinpoche, 2004).

In shamatha meditation we don't add any new thoughts to the thoughts coming up. Because this labyrinth of thoughts needs other thoughts for it to sustain itself, it starts to slowly lose its complexity (de Wit, 2003). The deluded mind becomes disempowered over time (Traleg Rinpoche, 2004). After a while one will be able to let go of all the talking in the mind, the memories, or thoughts about the future (Pema Chödrön, 1991). One will be able to rest in non-conceptualisation (Jamgon Kongtrul, 1983).

As the habit of conceptual grasping subsides, you may begin to perceive in a different way, without superimposed concepts, now that the conceptual mind has calmed down (Wallace, 2006b). Often this is experienced as something which opens up, as if the wakefulness suddenly unfolds (de Wit, 2003). Something is being disclosed, unveiled of the conceptual veil, which makes that the experience of reality becomes more intense and more clear (de Wit, 2000). After the ordinary mind has been purified from these incidental thought-trains, this original and fundamental nature of the mind will become manifest (Dalai Lama, 2002). In order to uncover this fundamental original clear light of the mind, one first has to peel off the coarse levels of mind which are entangled in thoughts and concepts (Dalai Lama, 2002).

As the dust of the mind settles, you may discover an unprecedented degree of lucidity of awareness (Wallace, 2006b). It is because we don't conceptualise (by which we fixate and narrow the attention to the thoughts), that the mind becomes an open dimension (Traleg Rinpoche, 2004). The mind stays clear, just the way the mind is (Tenzin Gyatso, 1984). The mind becomes like a mirror, in which any object or any thought can appear, just as reflections (Tenzin Gyatso, 1984). Meditators have described such experiences as periods of a more panoramic perspective and spaciousness of mind (Varela *et al.*, 1993). A traditional metaphor for this experience is that the mind is the sky in which different mental contents, like clouds arise and subside (Varela *et al.*, 1993). These experiences are natural outgrowths of mindfulness-awareness meditation (Varela *et al.*, 1993). The mind becomes completely clear which renders the ability to know, to experience (Tenzin Gyatso, 1984). Once these habits of fixating are cut through, and one learns the attitude of letting go, the mind's natural characteristics of knowing itself will become manifest (Varela *et al.*, 1993).

This is why it is said that when one is taking refuge in the Buddha, one is actually taking refuge in one's own Buddha-nature (de Wit, 2005). The Buddhist tradition is about something fundamentally present in the human being (de Wit, 2005). The dharma and its practice are a means to manifest this Buddha-nature (de wit, 2005; Cabezon, 1988). Buddha-nature is the clear-light-aspect of the mind. It is that knowledge and clarity which has not been affected by the conceptual mind (Cabezon, 1988). The Tibetan word 'sem' refers to the mind which is only temporarily obscured, while 'Rigpa' indicates pure awareness, or unobscured consciousness, which is pure in nature (Dalai Lama, 2002). During meditation we don't create a special state, we don't have to search for something unusual, without having to bring something new, something from outside, we can experience something very natural (Traleg Rinpoche, 2004). We cultivate what is natural (Traleg

Rinpoche, 2004). Because of meditation one can have a temporary experience of this original state, or the true nature of mind, which is always said to be clear and radiant, like the way the sun always shines, but could become temporarily obscured because of the clouds (Tenzin Wangyal Rinpoche, 2001). There are other meditations like Dzogchen and Mahamoudra, which further cultivate this true nature of the mind.

3 The 'Shamatha mind' as a new means for learning

As we saw earlier in the discussion of the nine stages of shamatha, there are different effects of the training. We have chosen here to use the conceptual framework laid out by Gibson and Ingold, in which we emphasised the education of the attention. In this education, the attunement of the perceptual system on the mental environment is considered important. In skills (discussed by Ingold, chapter 2 part II) such as pot baking, two things are happening. Because of practicing the skill, the perceptual system (the mental sense) of the practitioner is changing, improving, becoming educated. But next to that, because of his actions also the environment (the mind) is changing. In pot baking, the clay is gradually receiving the form of a pot. This is also something which we can find in meditation. On the one hand the mind becomes pacified because of shamatha meditation. On the other hand one develops a finely honed perceptual ability because of the meditation. This shamatha mind, we have reached, is not the goal however. This mind will further be used in order to learn more about the working mechanisms of the mind itself through vipassana meditation, in which one is investigating the dependent arising of phenomena, such as the mind and reality.

Here we come to another point in my thesis. Through shamatha meditation we create a second 'learning environment' within our own minds. Not only the Buddhist tradition is a 'learning environment', but our own mind has now become a 'learning environment' in which we can investigate the mind and our phenomenological reality. The trained mental sense can now be conceptualised as a 'technology' (in the sense of Ingold's conceptualisation of 'technical' rather than in the modern meaning of 'technology': see appendix 1) or methodology in order to investigate the mind through vipassana meditation. We can see the shamatha, peaceful mind as a 'learning environment', which enables us to further gain more knowledge about the mind and other phenomena. We will show how this special kind of 'learning environment' allows for non-conceptual insights. This kind of insight is not limited by words, ideas or conceptuality and can thus not be communicated. This insight is gained from 'direct perception'. We can see the shamatha mind and its perceptual abilities as a technology which is used to further investigate the mind. In Shamatha meditation we learn how to attune the attention and in vipassana meditation we use this refined instrument to investigate, in order to come to a non-conceptual understanding of the true nature of reality and the mind.

In this way a kind of knowledge which cannot be communicated by language, can be regenerated by each new generation. It is learned by one's own experience and is therefore often called 'experiential knowledge'. It is a kind of 'perceptual knowledge' because it is not generated by listening to teachings or thinking, but by perceiving the mind and reality with the refined tool of the attention. This particular kind of insight transforms the mind and experience. This kind of knowledge has an effect on the entire knower. Through Gibson and Ingold's conception of knowledge we were able to make visible this perceptual kind of knowledge, next to the conceptual kind of knowledge distinguished in cognitive psychology. If we would only use cognitive psychology as a conceptual frame, we would have been blind for this kind of non-conceptual knowledge.

3.1 Vipassana meditation

As discussed earlier, Buddhism is characterized by three important trainings of the mind. Next to ethical discipline and concentration meditation, one is training in wisdom (Tenzin Gyatso, 1984). The training in wisdom entails an analytical meditation (i.e. vipassana) on emptiness, through which one gains special insight in interdependent arising and the selflessness of phenomena and the mind (Geshe Gedün Lodrö, 1998; Tenzin Gyatso, 1984). This is about seeing the world and the mind in terms of utter dependent origination and mere arising within a network of interrelations with no discreet entities (Thupten Jinpa, s.d.). Even things which seem totally opposed to each other, such as subject-object, perceiver-perceived need each other for existence (Traleg Rinpoche, 2005). When one learns to perceive the emptiness of phenomena in a non-conceptual way through insight mediation, this is called the 'path of seeing'[15] (Tenzin Gyatso, 1984).

There are many variants of insight meditation, but this is not the place to give an overview of them. One can use for example an idea or a mental image as the object of meditation (Lama Karta, 2004). In one form of insight meditation, for example, one analysis the reality of the self (Mark Epstein, 1995). Vipassana meditation sometimes makes use of reasoning, but within a meditative learning environment. For example, one can analyse and investigate the selflessness of the phenomena within this meditative learning environment (Dalai Lama, 2002). Using reasoning, conceptual ideas, mental images, words and so on in the meditation is only a starting point, it is only through letting go of these, that we can come to genuine insight. Insight comes from realising the emptiness of phenomena, not on a conceptual level, though as a consequence of meditation (Traleg Rinpoche, 2004).

It is important to first have intellectual understanding, but one should be cautious in relying on that, because it is just an image in the mind and not experience (Traleg Rinpoche, 2004). That mental image could even become a barrier. Since in Buddhism the cause of suffering lies in mistaking the relative reality (brought into life through conceptual consciousness) for the ultimate reality, it is not the final aim to replace our so-called ignorance, by new concepts. Even if in a first step we will make use of reasoning, or 'correct conceptual cognitions', we should finally also be able to let go of these and come to a non-conceptual understanding (Komito, 1987). The seventh century Indian Buddhist epistemologist Dharmakirti presents a schema according which he explains how an initial intellectual understanding could through prolonged habituation, eventually culminate in an experiential understanding that is

[15] One furthermore learns to destroy the seeds of the afflictive emotions through the power of direct perception of the emptiness in what is called 'the path of meditation' (Tenzin Gyatso, 1984).

characterized with immediacy, spontaneity and effortlessness (Thupten Jinpa, s.d.). A good analogy here is the process of acquiring a skill such as swimming or riding a bicycle where the key factor is actual practice (Thupten Jinpa, s.d.). For an extensive overview of one method to turn a conceptual insight into a non-conceptual understaning, see appendix 2.

In vipassana we further cultivate 'discriminating awareness' (Traleg Rinpoche, 2005). This is the 'faculty of distinction' which is able to separate what is real from what is not real (Traleg Rinpoche, 2005) without using language or labels. Because of the sufficiently developed state of shamatha, we have more clarity in the mind and we will be able to bring the attention to the perceptions of the mental sense before these become mixed with conceptual imputations. We are able to bring the attention to the moments the mental sense is perceiving a mental object, such as the memory of birds flying over and to the incoming perceptual consciousness of the sound of the birds. We learn to dissect what aspects in our perception are imputed by the conceptual consciousness (this mental image of the birds) or what aspects are perceived by the perceptual consciousnesses (the actual sound), as well as the influence, the interplay between these consciousnesses, has on our experience and how this also influences reality. Meditation thus plays a role in teaching us how to see the world, including one's own existence in a new enlightened way (Thupten Jinpa, s.d.).

The achievement of an exceptional degree of concentration and mental balance through the cultivation of shamatha is necessary to progress fully in the training of wisdom (Wallace, 2006b). If we contemplate on the nature of reality without having shamatha stability, we will get lost in discursive thoughts (Traleg Rinpoche, 2005). Calm abiding or shamatha must be developed in such a way, that it cannot be ruined by analysis (Geshe Gedün Lodrö, 1998). Through shamatha, the mind will become more open and flexible, which is preparing the mind for the practice of vipassana (Traleg Rinpoche, 2005). If our practice of vipassana, however is not supported by the achievement of shamatha, no realization, awakening or transformation will last (Wallace, 2006b). The cultivation of meditative quiescence is regarded as an indispensable prerequisite for the cultivation of insight (Wallace, 2001). The meditator uses the shamatha mind or calm abiding as a mental basis for engaging in analytical meditation (Geshe Gedün Lodrö, 1998). This view is shared by the entire Indian Mahayana tradition (Wallace, 2006b). When one has sufficiently developed shamatha, we can start vipassana training (de Wit, 1998).

3.2 The shamatha mind as 'learning environment'

Through the shamatha meditation, one has created a new learning environment in which we can continue to learn things through vipassana meditation, which cannot be communicated through the words of the tradition, but which are nevertheless part of the tradition. The achievement of shamatha is not the final fruition of Buddhist practice, any more than cultivating a field is the same as reaping its harvest (Wallace, 2006b). In shamatha one is cultivating the field, to make it ready for the use in other meditation forms. As we discussed earlier, the 'knower' is the immediately preceding moment of conscious of the mind (deCharms, 1999). When one is analysing the selflessness of phenomena as object of meditation, making use of an untrained mind (as a 'knower') one will get lost. If the 'knower' is calm abiding, which is characterized by concentration and mental stability the object of meditation

will be examined in a different learning environment and this will result in a better understanding of the object of meditation, than when the learning environment is the one of an ordinary, untrained mind.

This 'knower' has a central position in the understanding of the perceived (deCharms, 1999). This special mind of shamatha or calm abiding (as a 'knower') is used as a mental basis (Geshe Gedün Lodrö, 1998) or learning environment. In sensory direct perception, the eye conscious depends on the aspects of colour and shape that are cast toward it (Klein, 1998). What is called the 'yogic direct perceiver', however does not depend on this as its base, but it has as its base (i.e. knower), calm abiding, that is meditative stability and penetrative understanding (Klein, 1998). That is the base from which emptiness can be perceived directly (Klein, 1998).

Gaining insight or knowledge in this case seems to be about *perception*. Because of this special type of mind, one doesn't have to depend on the processes of reasoning as one usually does while analysing (Geshe Gedün Lodrö, 1998). The strategy of analysis is something totally different than merely *thinking* about oneself, one's life, words, deeds and so on (de Wit, 2000). Neither does it imply the repression of thoughts about oneself and life (de Wit, 2000). Because one has cut through the fixation on thoughts, it becomes possible to investigate them and the total field of the mental domain in an exceptionally clear way (de Wit, 2000). Because of the extremely clear quality of the mind, one can attain non-conceptual insight through clarity (Tenzin Wangyal Rinpoche, 2001).

This all sounds very new and very vague, it is difficult to image how this can be possible. Let's take another simple but very clarifying traditional metaphor. Tsongkhapa (2000) illustrates this with the example of examining tapestry in a dark room. If you illuminate it with a radiant, steady lamp, you can vividly examine the images . If the lamp is dim, or bright, but flickers in the wind, your observation will be impaired. Likewise, when analyzing the nature of any phenomenon, penetrating intelligence with unwavering, sustained voluntary attention will enable you to clearly observe the real nature of the phenomena under investigation (Wallace, 2006b). Because of the power of shamatha, the mind will not be disturbed by the wind of conceptual thoughts, like a butter lamp which is unmoved by the wind (Dalai Lama, 2002b). This is the influence the shamatha mind has as a 'learning environment'. When we use the ordinary mind, it will be like opening a butter lamp which flickers in the wind and is rather dim. If we use the shamatha mind, it will be like looking at something in a room which is illuminated with a radiant steady lamp and we will be able to learn or perceive the object of meditation in a much better way. This lamp is illuminating everything around, as well as oneself. This is why the mind as observer is different from the eyes as a perceptual system: eyes can't look at themselves (Traleg Rinpoche, 2004).

The metaphor of seeing is used to explain how knowledge is gained in vipassana meditation, it is called 'the path of seeing'. Because of the clarity of the mind, one has the ability to know things in a very direct way, it just becomes apparent, it is 'seen' in a very direct way, how things work like. Because one doesn't hop onto or isn't dragged along with thoughts, which are passing by as clouds in the sky of the mind, one is able to observe them from very close by. They are no longer like a commentator behind the scene, but we see them on the scene and see what influence they have on what is happening on stage.

This type of immediate insight, which doesn't rely on the movement of thinking, is able to know things, which usually lie beyond the understanding of the ordinary mind (Tenzin Wangyal Rinpoche, 2001). If one uses the words 'perfect knowledge', 'wisdom', 'insight' in this context, we should not understand this in the same way as we usually understand these words. In this case we are talking about a *non-conceptual form of knowledge*, wisdom or insight, which is being attained in a meditative 'learning environment'. One is gaining insight which cannot be conceptualised and communicated (Traleg Rinpoche, 2005). Labels and ideas don't limit a Buddha's direct perception of things (Traleg Rinpoche, 2005). Shamatha will render a mind which will allow such a perception of things (Traleg Rinpoche, 2005). We can use the metaphor or concept of 'learning environment' for the shamatha mind in which we examine phenomena. In this case we consider the mind as an environment in which we can learn. But we can also use another metaphor.

3.3 Shamatha as a 'technology'

The mind in meditation, takes up many functions. At the one hand it plays the role of an environment, at the other hand, the mind is also the one who is performing actions, like for example observing or analysing. The mind is also the one who is perceiving the mind as environment. We can compare the ordinary mind with the telescope of Galileo, who is riding a camel in the desert in the middle of a sand storm. He will not be able to do good research (Wallace, congress Buddhism in the West). This will deliver a very biased examination, and the results of it won't be reliable. In Shamatha meditation we refine this telescope, by learning how to attune it, followed by using this refined instrument of perception in vipassana meditation. The cultivation of contemplative insight entails the precise examination and investigation of various facets of reality. The instrument it uses is one's previously refined attentional abilities (Wallace, 2001).

With the curiosity of a child, one is trying to stand as close as possible with everything, to be able to see it very good (de Wit, 2003). The effect of mindfulness/awareness training is that it brings one closer to one's ordinary experience (Varela *et al.*, 1993). Mental stability which has been cultivated through shamatha, is what is making sure, that we don't get dragged away by the turbulence of our thought-stream and we can tune in very close to it as a telescope, which makes it clearly visible (de Wit, 2003). Because the attention has been trained in such a way, the thought-stream, no longer has this power to pull the attention onto it, which makes that the practitioner can go stand very near to it, without losing this unstained position (de Wit, 2003). Because of this, one can keep an open mind, this means there is a lot of space instead of the narrowing down of the consciousness, while fixating on a thought, thoughts or a thought-frame (de Wit, 2003). Through this, one gains a non-conceptual form of knowledge (de Wit, 2003).

Because we have no veil of conceptuality standing between the attention and phenomena, we can see them from very close and very clear. Because of the development of this finely honed perceptual ability it would be possible to perceive objects or thoughts, without labelling them conceptually (Komito, 1987). This is direct perception without bias (Komito, 1987). Because of shamatha meditation, one can create such an ability in concentration, which makes it possible to attain direct perceptions (Komito, 1987). In insight meditation we can analyse without using any mental forms such as concepts or images, but by immediately perceiving the mind

and reality in an unbiased way (de Wit, 2003). This unbiased aspect is very important, because it makes that we can see the stream of our experience without deformations and can come naturally to insight and knowledge (de Wit, 2003). In the discipline of insight one can investigate one's stream of experience without imputing concepts on them, which is a big difference with our usual way of perceiving (de Wit, 2003). It makes that we are free of any conceptual framework, or questioning as a starting point for investigation (de Wit, 2003). In contrast to shamatha meditation, where one does have to put effort, the discipline of insight is based on a effortless use of this instrument (de Wit, 2003).

The education of the attention is a necessary prelude to that. It is not the goal, but a means (de Wit, 2003). The alertness, attention, and one-pointed concentration make sure we can direct our attention to a certain point and keep it there. This is the basis from which mental distinction can develop, which gives the mind the ability to have an overview and insight in the interrelatedness of phenomena (de Wit, 2003). It is a way of being conscious, free of the fixation on our conventional experience of reality with its accompanying comments (de Wit, 2003). The 'faculty of distinction' only develops on the basis of this mental stability or calmness (de Wit, 2003). The 'faculty of distinction' makes us conscious of the way we interpret our experience (de Wit, 2003). The application of this high degree of concentration takes the form of a mental dissecting-knife, which is being used to cut through the conceptual projections (Wallace, 1993). This enables us to disentangle illusion and reality and see our experience in an unobscured way (de Wit, 2003). One will be able to apply this high degree of concentration and be able to make a clear distinction between our conceptual imputations and how reality manifests (Wallace, 1993).

Usually we tend to believe that we don't project anything on reality. Because of the cultivation of the faculty of 'distinction' we become more and more able to see the effects of our interpretations on our experience of realty from moment to moment (de Wit, 2003). Insight meditation is about the direct insight in the mind and experience, through the use and further cultivation of the 'faculty of distinction' or 'discriminating awareness' (de Wit, 2003). The 'faculty of distinction' pervades the whole field of experience (de Wit, 2003). It is said that it is the clarity of the space itself which clarifies experience (de Wit, 2003).

It is here that we come to a point where it has become difficult to distinguish between the perceptual system which has been educated and refined, or the environment of the mind, which we perceive. Environment and perception are one and the same. The attention is pervading all of this. We have been trying to cultivate a way of perceiving, which was actually about unlearning another way of perceiving, through which the fundamental light of Rigpa was becoming visible, which is pervading any aspect of experience. It is this light which is clarifying everything and which knows by itself, at least if there are no obstacles in the way, like the conceptual veil which usually obscures experience.

In the Buddhist tradition, one not only states that experience itself can be examined but also that the skill in such an examination, is something which can be considerably refined over time (Varela *et al.*, 1993). This is like developing a telescope for the precise, penetrating observation of mental phenomena, including the nature of consciousness itself (Wallace, 2006b). Thus the training in shamatha is a kind of contemplative technology, aimed at developing the one tool by means of

which mental phenomena can be directly explored in vipassana meditation (Wallace, 2001).

In this context we want to use Ingold's understanding of the concept 'technology'. Technology, not in the sense of a mechanical execution of a pre-existing program, in which the creative part has been removed from the context of the engagement with the material, but in the old sense of the craftsman in perceptual engagement with his material (Ingold, 2000g). Technology in the old sense is more like a skill, then technology in the modern sense. It is also this skill of mastering the fine-tuning of the perceptual system, which is used in vipassana meditation, as an instrument to come to penetrative understanding. In shamatha the emphasis lies on the development of this fine instrument. According to Wallace (1993) this is comparable with the precise development of perfect instruments with which one makes precise measurements in science. During shamatha one develops an awareness instrument which one has to attune accurately in order to be able to come to an understanding of the true nature of reality (Wallace, 1993).

3.4 Non-conceptual, experiential or perceptual knowledge

Buddhism is characterized by two forms of knowledge: a conceptual form of knowledge and a non-conceptual form of knowledge (de Wit, 2000). Conceptual knowledge is the kind of information one can communicate to the next generation, because it is based on reasoning and concepts (de Wit, 2000). If we think about our experience, this leads to conceptual knowledge, because we make use of concepts (de Wit, 2003). Next to this there is also another way through which the next generation can gain knowledge but which cannot be passed on through language (de Wit, 2003). We could call this kind of knowledge Buddhism is trying to pass on to the next generation: 'perceptual knowledge' (de Wit, 2003). It is not gained by listening to the teachings or by thinking, but by perception (de Wit, 2003). Conceptual knowledge implies the use of the ability to reason, while non-conceptual knowledge is gained through the mental sense (de Wit, 2000). Often one can find references to this mental sense by metaphors which explain the gaining of this knowledge as 'seeing' or 'hearing' (de Wit, 2000). It is namely about perceiving, rather than thinking (de Wit, 2000). One is trying to perceive one's thought-stream through the mental sense (de Wit, 2003). This way of gaining knowledge makes use of bare awareness, or naked perception (de Wit, 2000). And the techniques to develop this are passed on through the Buddhist tradition as the creation of a learning environment.

While conceptual knowledge is representative for something, perceptual knowledge cannot be defined as a relation of 'a representation of the perceived' (de Wit, 2000). This is what we encountered in the above two chapters, that it was difficult to still make a distinction between the mind as what was being observed and the mind which is observing; or the mind as environment versus the mind as mental sense, which is perceiving conceptual and direct perceptual information. Perceptual knowing is about perceiving one's own mental domain as well as the other domains of experience (de Wit, 2000). Through the mental sense, one is now able to perceive the phenomena from the whole field of experience. Where an untrained mind cannot perceive the objects of direct perceptual knowledge by the mental sense, a trained mind can. Visual experiences sounds, smells, tastes, as well as thoughts, emotions, daydreams, etc. are now consciously perceived through the mental sense (de Wit,

1998). All these phenomena which we consider to occur outside and inside us, are part of the environment perceived by the mental sense (de Wit, 1998).

Perceptual ignorance is about confusing the mental representation of something with the represented (de Wit, 2003). One is mistaking the map of the land for the landscape itself (de Wit, 2003). It is this conceptual veil that contains our image of ourselves, our worldview and all the other mental images or mental models (de Wit, 2003). As long as we haven't developed the faculty of distinction we cannot distinguish between the self-image and the true nature of the mind (de Wit, 2003). The discipline of insight, leads to perceptual knowledge of oneself. It makes us familiar with our experience of reality and it makes us see the role of the conceptual consciousness in it (de Wit, 2000). The 'faculty of distinction' sees how our experience is dressed up with this veil (de Wit, 2000). One becomes able to see how all aspects of experiences, such as emotions, thoughts and interpersonal relations, body and mind, cognition and emotion, perceiver and perceived are integrated and are interrelated to each other (Pickering, 1997).

Insight-meditation is sometimes also called 'panoramic consciousness' (Trungpa, 1991). Usually we identify with certain appearances in the field of our experience or we manipulate appearances in the mental field. Because now we don't interact with it, but simply let it be, we can see the interrelation between the phenomena in the field of experience, we *see* the causal relations between them and gain knowledge in this way (de Wit, 1998). This form of perception is active if we are not fixated on what we experience (de Wit, 1998). It is fundamentally non-conceptual. This is the kind of knowledge an enlightened person is said to have, it is said to be perceptual in nature and cannot be communicated through language (de Wit, 2003). It is said to be a kind of knowledge, as the knowledge of a deaf-mute person can have of the taste of sweet (de Wit, 2003). One can for example know hundreds of people their faces, without being able to describe their faces (de Wit, 2003). Non-conceptual knowledge is more like being familiar with something (de Wit, 2003). In Gibson's (1979) conception of knowledge, knowledge of the environment, develops as perception develops, extends as the observers travel, gets finer as they learn, as they apprehend more events and gets fuller as they see more. This comes close to the Tibetan words for meditation 'gom' or training the mind 'lojong', which also carry this signification of 'becoming familiar with something'.

The act of meditation and the resultant knowledge can as such not easily be distinguished from each other. They arise together. As one learns to refine one's attention through shamatha, one also gets to know the mind, in a way of getting familiar with it. This skill has finally become part of one's being, one has grown into the knowledge. According to Ingold's conception of traditional knowledge (for example hunting), it is inseparable from the actual practices of inhabiting the land (Ingold *et al.*, 2000). It is through the relationship with the land, along with the animal and plant life in it, that knowledge is generated (Ingold *et al.*, 2000). Also in meditation we find that knowledge is gained through the practical engagement with the mind as environment. It is through this familiarization with one's own mind or experience, that Buddhist knowledge is generated and regenerated. This is what we tried to explain earlier, when stating with de Wit (1998), that Buddhism is not a tradition which is based on convictions and beliefs, but on unbiased perception. It is based on the education and refinement of mental perception (de Wit, 2000) through which one learns to put one's presumptions, one's beliefs, as well as the Buddhist

theories of the mind aside in order to take a look at the mind and experience or discover things for oneself (de Wit, 1998). It means that through this engagement with one's own mind and experience as environment, knowledge is generated. Again we can see the parallels with Ingold's conception of traditional knowledge, in which he claims that through having grown up in the land, the native has come to know it, and learned to perceive it better (Ingold *et al.*, 2000). It is in meditation, that one is engaging with one's own mind, getting to know it and learning to refine one's ability to perceive in the process.

One then uses this refined instrument in the further investigation of the mind during vipassana meditation. One can have an intellectual understanding of the emptiness of phenomena, but vipassana meditation is aimed at acquiring *experiential* knowledge of the mind, the phenomena that are apprehended by the mind and the relation between the two (Wallace, 2001). The relation between knowledge and action was diagnosed by Greek philosophers as weakness of will to be the problem of why knowledge does not immediately translate into action (Thupten Jinpa, s.d.). Buddhism would argue that the problem is the failure to integrate such knowledge into the person's being. In other words, it is meditation that is seen as the link between an intellectual knowledge and the desired change in one's attitude and behaviour (Thupten Jinpa, s.d.). Therefore it is emphasised that we should gain insight from our meditation, more than broadening our knowledge from various fields (Traleg Rinpoche, 2004). It is not because we are good in logic and reasoning, that we have good insight (Traleg Rinpoche, 2004). The insight in one's mind and experience, gained in insight meditation transforms the mind and experience as well (de Wit, 2003). It is not a kind of knowledge which leaves the knower unaffected. It has an effect on the knower. This comes close to Smith's concept 'human learning', which is also about a kind of learning process, different than only gaining information. The learning also affects the learner. Through the gaining of knowledge, insight or wisdom, the whole person is transformed in the same process (de Wit, 2000; Pickering, 1997).

4 Conclusion: Buddhist practice as a means to investigate the mind

When using our new concepts (outlined in chapter 2 of part II) in taking a second look at Buddhism, we come to a quite different result. Buddhism can be seen as passing on tools with which we can learn to investigate the mind. Therefore it has been claimed by many that Buddhism is a kind of science of mind. Wallace (2006b) has claimed that if the practice of shamatha can be seen as the development of a contemplative technology, one can compare the practice of vipassana with a kind of contemplative science. The Dalai Lama has also tried to point out that Buddhism is not really like a religion in the sense we know religions, but is an investigation of the mind (Dalai Lama, 2002). Insight meditation is a systematic form of research and investigation of the mind (de Wit, 1998). The Buddhist investigation of the mind yields deep insights into the nature of consciousness, benefiting those who practice it with enhanced mental health (Wallace, 2006b). The descriptions of these discoveries by some great masters, can also be found in the Abhidharma literature (de Wit, 1998).

Even if Buddhism is not the same as Western science, Pickering (1995, 1997) considers it worthwhile to direct science's attention to the knowledge gained from Buddhism. Buddhism has been associated with science since it was discovered by the English in the 19th century. Since then, however Buddhism has become known in a much more correct way by Western people. The Dalai Lama whom is very interested in science, has participated in dialogues with scientists, comparing Buddhist knowledge about the mind, with knowledge gained by Western science in the mind. In this process a lot of scientists, of which a lot of them also practice meditation, have gotten a much clearer view on Buddhism then the 19th century Victorians. Through this process, Western scientists have become aware of the differences between Buddhist knowledge and Western science. But this didn't cause them to reject Buddhism as a 'belief'.

On the contrary, a lot of those scientists have become convinced of the reliable observations which can be done of the mind, using the shamatha mind as a contemplative technology, a method, which was unknown by the introspectionists at the dawn of psychology as a science. The possibility of reintroducing first-person-investigation of the mind as a legitimate means of inquiry with respect to the mental world has been considered by many of them. Francisco Varela initiated a sustained attempt to making this possible and his work is today further developed by some of his colleagues (Thupten Jinpa, s.d.).

Also the body of knowledge, collected by Buddhists, should be considered as worth-while by Western science. The sutra's and their commentaries consist of a broad area of ideas and theories which concern the same domain Western psychology tends to investigate (de Wit, 1998). The Abhidharma taxonomy of the mental world represents a map of our mental reality (Thupten Jinpa, s.d.). Abhidharma refers to a collection of texts that forms one of the three divisions of the Buddhist canon (Varela, *et al.*, 1993). The other two are the vinaya, which contain ethical precepts and the sutra's, the speeches of the Buddha. Based on the Abhidharma texts and their later commentaries, a tradition of analytical investigation of the nature of experience emerged, and is still taught and used by most Buddhist schools (Varela, *et al.*, 1993). Abhidharma has many dimensions and one of them is a

phenomenological psychology whose primary concern is to understand the nature of experience, the world as given in experience (Waldron, 2002). Abhidharma represents an attempt to systematically analyze mental processes in terms of experiential events (Waldron, 2002). In Buddhist psychology, terms such as attention, emotion, cognition, motivation and perception refer to phenomena which have been studied through the microscope of insight-meditation (de Wit, 1998). The Buddhist knowledge is therefore also an empirical knowledge, since it is also based on empirical investigation (de Wit, 1998).

Sometimes, however, in contemporary literature, the impression is given that all statements found in the classical Buddhist texts, constituted the facts of our mental world discovered through meditation insights (Thupten Jinpa, s.d.). The descriptions of the Abhidharma literature which relate to the reality of our mental world are often said to be uncovered through meditation as an inner science (Thupten Jinpa, s.d.). However this is not entirely the case. The Abhidharma consists of the scattered comments of the Buddha, that pertain to consciousness and mental states, which were later compiled together in the early Abhidharma canonical texts (Thupten Jinpa, s.d.). In addition, the personal experience of subsequent Buddhist masters such as Nagarjuna and Asanga developed on the basis of meditative reflection (Thupten Jinpa, s.d.). These were further integrated in the Abhidharma literature. Philosophical analysis of their definitions, functions and interrelations may have also played a role in standardizing their preferred taxonomies (Thupten Jinpa, s.d.).

This raises the question whether Buddhist meditation can be more than a new object of investigation in brain science (Thupten Jinpa, s.d.). At the moment meditation and its effects on brain levels as well as on mental health, is extensively investigated in neuroscience and in cognitive science. According to Pickering it is time to also consider the knowledge Buddhism has gained through the investigation of consciousness. Buddhist and scientific knowledge can be placed in relation and compared (Pickering, 1995). This meeting of Buddhist meditation and brain science could hold important potentials of developing a scientific understanding of our mental reality (Thupten Jinpa, s.d.). Buddhist meditation tradition and its attendant theory of mind represent one of the most systematic attempts at not only parsing our mental reality but also a sustained systematic approach to defining the individual mental states and their interrelations (Thupten Jinpa, s.d.). It is based on the words of the Buddha, centuries of philosophical debate, as well as the personal inquiry by many meditation masters.

In part IV we will outline the current influences of Buddhism in science. How did Buddhism and science up until now work together in the search for knowledge of the mind. Is it only through the study of meditation as an object of science? Or do scientists also believe that Buddhist knowledge could actually add something interesting to the scientific debate? In part V we will give an overview of the discussions the interplay between science and Buddhism raises in order to legitimate or obstruct this evolution. How come for example that Buddhist psychology as a systematic body of knowledge is not or hardly known, even among scientists who try to understand the positive effects they measured in meditation, while Buddhist psychology offers an entire theory of mind which could be helpful in this?

Part IV: CONTEMPORARY INFLUENCES OF BUDDHISM IN MAINSTREAM SCIENCE

We started our journey with the comparative studies of religion, which is still considered the most legitimate area of investigation within science, to study Buddhism. We have seen how Buddhism, as an object of study was drawn within an existing framework of thought, with its underlying *a priori*'s and hidden (typically Western) hypotheses about what a human being is, and what learning processes are. We showed how these concepts give a deformed and reductive view on Buddhism. In part II we brought these underlying Western ideas to the surface and discussed their influences on concepts such as 'belief system', 'tradition', 'learning processes', 'knowledge' and so on. This brought us to the area of study of psychology and the hegemony of the cognitive paradigm. We have outlined an alternative framework of thought, based on Gibson's ecological psychology with which we could translate Smith's religious language into some new concepts for the study of Buddhism. We have put Buddhist psychology next to these two seemingly opposing Western psychological theories in order to see how both of the frameworks (ecological and cognitive psychology) contain elements which are also present in Buddhist psychology, but not in an opposing way.

We have also seen how, next to the similarities between Buddhism and Western psychology, there are also important differences. In part III, we have seen that when using other concepts and another underlying view on what the human being, learning processes and knowledge are, we come to a very different outlook on Buddhism than that what was presented in the comparative studies of religion. In part III we also used Buddhist authors to give their opinions on Buddhism. Because of this other way of describing Buddhism, it emerged in front of us, as a means to investigate and transform the mind and the lives of those who follow the Buddhist path. This has raised the question whether we should keep Buddhism confined within the comparative studies of religion as an object of study. Buddhist meditational practices as a means to investigate the mind, as well as Buddhist philosophical studies and debates within monasteries, have resulted over the centuries in a whole body of knowledge in literature and oral transmissions on the mind. The question whether Buddhist psychology could be interesting as an object of study for and as partner for the Western science of mind has been raised.

Of course these aspects of Buddhism have not stayed unnoticed by scientists in psychology and neuroscience. In part IV we will give an overview on how Buddhism has currently had an influence and permeated science. In part V we will discuss what controversies this has raised, and what arguments are used in this meta-discussion, *pro* or *contra* Buddhism as a partner in the scientific debate. However despite, the opinion of some scientists, we will see in part IV how Buddhism has had an impact on science already.

We will show the striking absence of Buddhism as a partner in the scientific debate in mainstream psychology (chapter 1). Current psychology invests a lot of energy in researching secularised forms of meditational practices, more particularly the mindfulness-approaches. Mindfulness in this sense, however differs significantly from the concept 'mindfulness' we discussed in part III. We will explain the differences in

terminology below. Despite the fact that currently, one after the other scientific outcome study on meditation-based or mindfulness-based psychotherapies, shows the positive effects of meditation, the Buddhist tradition remains mostly an object of study in a secularized form. Rather than being consulted about their psychological theories on meditation and the mind, psychologists prefer to pull these Buddhist practices within their own theoretical frameworks, and find their own explanations for the effectiveness of meditation, without consulting Buddhist psychology. This has been the case in the seventies, when Buddhist meditational practices first became the object of psychological research, but currently little change has been made in this evolution. Still Buddhism is banned from the mainstream academic debate in psychology. Some psychologists or psychiatrists however do get some inspiration from Buddhism, which is already a difference with the seventies.

We observed a different picture within the neurosciences, where Buddhist practices are not only object of research (chapter 3). Buddhists are being consulted on their theories and hypotheses are derived and tested from these theories. Buddhists help in thinking out experimental set-ups or help interpreting the results, using the Buddhist framework of thought. Also collaborational efforts have been made in publishing scientific articles in well-respected scientific magazines, in which Buddhists were the co-authors, for the fact that they had interesting Buddhist knowledge to add up to the discussion. On top of that a lot of neuroscientists, as well as some exceptional voices within cognitivism, realise that the Buddhist investigation of the mind, using the shamatha mind as technology or learning environment, is a very different type of inquiry into the mind than the scientific one (chapter 4). Therefore, currently there is a lot of debate within neuroscience *pro* and *contra* the adoption of this methodology into neuroscience as a complementary tool in the investigation of the mind. Finally this discussion has led to the proposal of a combination, in which one makes use of both scientific and Buddhist methods in the investigation of the mind.

The role of Buddhists like the Dalai Lama in this evolution within the sciences cannot be underestimated. As we will discuss in part IV, the Dalai Lama had a very stimulating role in the intercultural dialogue between Buddhism and science (see chapter 2). This has resulted in the Mind and Life institute, which task is to further support this collaboration, resulting in rigorous scientific research and publications in well-respected scientific magazines.

1 Meditation as an object of study in academic psychology

Since the seventies, a first start was made in studying positive mental health, rather than psychopathology, for example the training of the attention in meditational practices. Buddhist practices first appear as object of study in psychology, but Buddhist psychology has not yet been discovered as a partner in the scientific debate. The effects found in this research on meditation were explained solely by Western psychological theories, depending on the theoretical framework (cognitive, psychoanalytic, transpersonal, behavioural psychology or existentialism) of the scientist. This makes that all possible explanations have passed the revue, some more plausible than others, some totally next to the question (for example daydreaming or information-processing) and some really interesting (desidentification from mental contents, attentional components). In part II we extensively showed how the cognitive paradigm falls short in conceptualising the learning processes included in meditation. It is exactly not about the human as *homo symbolicus,* daydreaming or information-processing.

In contemporary psychology and psychotherapy, there is a real boom of mindfulness-approaches. The inspiration for the development of these techniques is derived from Buddhism. We found little participation of Buddhist knowledge in the scientific debates. Here and there an author refers to Buddhism as a source of inspiration, but no serious comparative study of Buddhist psychology and Western psychology with respect to explanations of the positive effects found in the outcome studies (discussed in this chapter) is done. In this chapter we will first situate the mindfulness movement in mainstream academic psychology and psychotherapy. We will discuss what mindfulness training is about and the differences with the concept 'mindfulness' in traditional shamatha meditation. We will link the psychological concept 'mindfulness' with the concept awareness in shamatha, which is only trained during the later stages of traditional shamatha or in Mahamoudra shamatha, a practice which is usually recommended after some attentional stability has been established through earlier training of mindfulness (in the Indo-Tibetan meaning of the concept). We will give a definition of mindfulness as conceptualised in academic psychology and how it is trained in protocollised practices. We will also give an overview of the different kinds of psychotherapies in which mindfulness training is integrated.

Furthermore we will show parallels between theoretical explanations of the effects of mindfulness in Western psychology and in Buddhist psychology. The role of conceptual frameworks or cognitive schemes in suffering could be the starting point of a new direction to take in psychology: namely the comparative study of Buddhist and Western psychology. However, since Buddhism is still classified mainly as a 'religion', it is usually left aside from the scientific debate, because it could damage the long-fought-for scientific reputation of psychology. We will go deeper into this discussion in part V.

1.1 Early research on meditation

The ability to train the attention through the practice of meditation has been under investigation a long time before the mindfulness movement started to bloom within cognitive psychology (Goleman & Schwartz, 1976). Academic science already showed interest in meditation since the seventies. A wide range of different kinds of

meditation practices were studied, derived from different kinds of Buddhist traditions, such as Zen, Trancendental Meditation (TM), ... Health care professionals had begun to take a serious look at eastern techniques such as meditation in order to explore positive mental health and not only pathology as had long been done in Western psychology. An actively participating role of Buddhism in this early scientific study, is very limited. In the scientific articles Buddhist techniques are studied as objects but Buddhist psychological theories are not considered in explaining the effects found. The effects were especially placed within the conceptual frameworks of the existing theories in psychology.

In 1977 the American Psychiatric Association officially recommended research in the form of well controlled studies to evaluate the specific usefulness, indications and contra-indications of various meditation techniques. The research should compare the various forms of meditation with one another and with psychotherapeutic and psychopharmacological modalities (APA, 1977: 720). From that moment on meditation was further investigated, as well as compared with psychotherapy at a practical and theoretical level (Perez-De-Albeniz & Holmes, 2000). This research on meditation continued to go on until it started to bloom in the nineties within mainstream academic psychology with the secularization of meditation into what was called mindfulness-based approaches (see next chapter).

In those days the research methods were rather limited to measuring physiological parameters, self-report or experimental set-ups measuring differences in perception. Presently however, neuroscience has made great advances and is no longer limited to investigating the effects of meditation through EEG, but there is also the PET (Positron Emission Tomography), and the fMRI (functional Magnetic Resonance Imaging) which can give a much clearer view about what is going on in the brain. The fMRI for example gives a detailed video of brain structure and the dynamics of the different parts of the brains, from moment to moment. As a consequence of this, these investigations in neursocience currently have a much bigger impact on academic science (see chapter 3), while the scientific research on this topic in those days was not so central to mainstream scientific debate.

The Buddhist practices under study showed different kinds of effects: reductions in stress, substance abuse, fears and phobias (Shapiro & Giber, 1978), psychosomatic complaints (Udupa, Singh & Yadav, 1973; Vahia, Doengaji & Jeste, 1973), depression, (Ferguson & Gowan, 1976; Vahia *et al.*, 1973), as well as positive effects on positive mental attitudes (Seeman, Nidich & Banta, 1972; Nidich, Seeman & Dreskin, 1973; Osis, Bokert & Carlson, 1973; Kohr, 1977; Goleman, 1971; Shapiro, 1978; Hjelle, 1974). Also non-subjective indices of change were found, in the sense that they didn't rely on self-report measures and questionnaires, but on behavioural indices of attitude and perceptual change (Davidson, Goleman & Schwartz, 1976; Singer, 1975; Pelletier, 1974; Shaw & Kolb, 1977; Brown, Stuart & Blodgett, 1974; Graham, 1971).

Pushing Buddhism in the Procrustean bed of Western psychological frameworks

The explanations to why meditation had certain effects were left to the conceptual frameworks of the researchers. Clinicians and therapists from several orientations gave explanations for the effects of meditation from within their own theoretical

frameworks. In this sense, meditation has been conceptualized as a self-regulation strategy (Stroebel & Glueck, 1977; Schwartz & Weiss, 1977) or as an evocative strategy which allows repressed material to come forth from the unconscious (Carrington & Ephron, 1975). Some of them have found it useful in transpersonal therapy (Weide, 1973; Goleman, 1971; Clark, 1977; Shapiro, 1978). Also combinations between eastern thought and techniques and Western psychology were made with Sullivanian interpersonal theory (Stunkard, 1951), Psychoanalysis (Fromm, 1960), behavioural therapy (Shapiro, 1978) and existentialism (Boss, 1965). Other explanations as to why meditation works are: relaxation (Benson, 1975), one single physiological change as a primary mediator, such as oxygen consumption (Watanabe, Shapiro & Schwartz, 1972) or skeletal muscular relaxation (Davidson, 1976). Also cognitive factors have been proposed as to why meditation causes certain effects on mental well-being such as: self-instruction (Shapiro & Zifferblatt, 1976; Meichenbaum, 1976: Boals, 1978), attentional components (Davidson *et al.,* 1976), global desensitization (Goleman, 1971), information-processing mechanisms (sic!) (Brown, 1977; Atkinson & Shiffrin, 1968; Craik & Lockhart, 1972), sensory deprivation (Piggins & Morgan, 1977), discrimination (Hendricks, 1975), de-automatization and bimodal consciousness (Deikman, 1971, 1966), sustained non-analytic attending (Spanos, Rivers & Gottlieb, 1978), regression in the service of the ego (Maupin, 1965; Lesh, 1970), general arousal (Fisher, 1971), hemispheric lateralization (Pagano & Frumkin, 1977; Bennet & Trinder, 1977), expectation effects (Smith, 1976), demand characteristics (Orne, 1962; Malec & Sipprelle, 1977), daydreaming (sic!) (Singer, 1975), specific neural activation patterns involving heightened cortical arousal with decreased limbic arousal (Glueck & Stroebel, 1975: Schwartz, 1975; Goleman & Schwartz, 1976), habituation (Ornstein, 1971; Anand, Chinna & Singh, 1961; Banquet, 1973) Desidentification from mental content (Walsh, 1977, 1978; Shapiro, 1980), imagery (Holt, 1964; DiGiusto & Bond, 1979), adherence (Shapiro, 1980), and finally non-specific variables for example being part of a group, (Shapiro, 1980), ...

We see that all possible kind of explanations have passed the revue. Some are quite interesting, some are less important, but some are far removed from what meditation is intended to cultivate. We can see that some of these explanations are given, out of complete ignorance for Buddhist psychological theories. For example information-processing or daydreaming are explanations which typically draw Buddhism within a cognitive paradigm (cf. the human being as *homo symbolicus,* see part I), while meditation is exactly not about these mechanisms, as we have tried to show in part II (where we showed the shortcomings of cognitive psychology in conceptualising the learning processes involved in meditation) and part III.

1.2 The contemporary boom of Mindfulness-based approaches in psychology and psychotherapy

Buddhism was the source of inspiration for Kabat-Zinn to develop a secularized form of meditation, fitting Buddhism into the existing Western structures as ‘psychotherapy’. Kabat-Zinn, however does refer to these Buddhist roots and also participates in an open dialogue with Buddhism in for example the Mind and Life dialogues (see chapter 2). He also derives his explanations to ‘what this state of mindfulness is’, from Buddhism.

Mindfulness is presently, subject to great interest within mainstream academic psychology and has caused a great breakthrough in its secularized form. The question this raises, is why it took such a long time (since beginning 1970) for meditation to cause such a blooming effect in current psychology. I think an important factor in this, is that meditation got secularized by Kabat-Zinn, and the link with Buddhism (conceptualised as a 'religion': a dangerous area for serious scientists to involve themselves with) became less obvious through this. In this way the association with religion was broken and meditation became situated in the category of mental health. Kabat-Zinn who designed the first mindfulness-based therapy, received patients from general practitioners who didn't know what to do any more with their patients, and thought, as a last try, they could send them to his program. The program, however had (for some, unexpected) positive results. The therapy moreover appeared to have positive results in outcome studies. Furthermore Segal, Teasdale and Williams, whom were well-respected scientists in depression-research, adopted mindfulness training in a rigorously structured protocol for the prevention of relapse in depression. The fact that this therapy could be done in group, was also an advantage, since this costs less money then giving individual therapy to each person. This is the reason why it quickly received the support of the government, for example in Belgium. I think these are all factors which were important in this sudden popularity of what is called 'mindfulness-based approaches'.

In the further scientific research on mindfulness and the explanations of its effectiveness we find little reference to Buddhism, let alone for Buddhist knowledge to appear as a partner in the debate. There hasn't been an extensive inspiration derived from Buddhist psychological theories as to why meditation and the aspect of mindfulness would have certain positive effects. We do find some similarities between recent psychological theories and Buddhist psychology, which is recognized by psychologists. Their opinion is that it would be interesting to take a detailed look at these Buddhist theories, however feeling the need to immediately add that finally it is up to science to have the last word and do the research about why and when, which techniques are useful. We do recognize the Buddhist framework in the definition of 'mindfulness' and the way it induces a detached view towards one's thoughts and emotions, but no explicit reference is made to Buddhist theories. What we do notice is that all kinds of theoretical explanations are given for its effectiveness, depending on the theoretical framework of the author giving the explanations. So the Buddhist practices are being pulled away from the conceptual frameworks of Buddhism and pushed within different psychological conceptual frameworks. In this way, the attitude of the seventies has remained mostly intact within academic psychology.

1.2.1 Situating mindfulness

Much of the interest in the clinical applications of mindfulness has been sparked by the introduction of Mindfulness-Based Stress Reduction (MBSR) by Kabat-Zinn. Kabat-Zinn (2002) originally got involved with meditation, while studying with Buddhist meditation teachers. He developed a secularised form of meditation in an 8- to 10-week program. At present, this treatment is widely used to reduce psychological problems associated with chronic illnesses and to treat emotional and behavioural disorders (Kabat-Zinn, 1998). Over 240 hospitals and clinics in the United States and abroad were offering treatment programs based on mindfulness training as of 1997 (Salmon, Santorelli, & Kabat-Zinn, 1998). With the success of the

treatment, a research group in England (Segal, Williams, Teasdale and colleagues) adapted the method into a cognitive psychological framework: Mindfulness-Based Cognitive Therapy, which is now also well-known all over Europe. Also other psychologists adapted Buddhist principles in their psychotherapies and in the last 20 years, mindfulness has become the focus of considerable attention for a large community of clinicians and empirical psychology (Bishop, Lau, Shapiro, Carlson, Anderson, Carmody, Segal, Abbey, Speca, Velting & Devis, 2004). These therapies were tested on their effectiveness, which resulted in a boom of one after the other outcome study claiming its positive results. At present there is a lot of interest in European research groups trying to find psychological explanatory theories in order to clarify this phenomenon.

Mindfulness in contemporary psychology has been adopted as an approach for increasing awareness and responding skilfully to mental processes that contribute to emotional distress and maladaptive behaviour (Bishop *et al.*, 2004). Mindfulness has been described as a process of bringing a certain quality of attention to moment-by-moment experience (Kabat-Zinn, 1990). The quality of attention and awareness can be cultivated and developed through mindfulness meditation (Kabat-Zinn, 2003).

'Mindfulness' is the fundamental attentional stance underlying all streams of Buddhist meditative practice: the Theravada tradition of the countries of Southeast Asia (Thailand, Burma, Cambodia, and Vietnam); the Mahayana (Zen) schools of Vietnam, China, Japan, and Korea; and the Vajrayana tradition of Tibetan Buddhism found in Tibet, Mongolia, Nepal, Bhutan, Ladakh and now large parts of India in the Tibetan community in exile (Kabat-Zinn, 2003). In the West, before the mindfulness movement in academic psychology started to bloom, it was taught by Western and Asian teachers such as Joseph Goldstein (1983, 1993), Jack Kornfield (1993), Ayya Khema (1987) and Thich Nhat Hanh (1976, 1991, 1993).

Mindfulness meditation in the form of the instructions given in the mindfulness-based approaches within psychology, is derived from early Buddhism, namely the Theravada tradition. The practices of mindfulness can vary considerably between sub-traditions and even within one tradition (Kabat-Zinn, 2003). As we pointed out earlier, mindfulness as described in the MBCT tradition within cognitive psychology, differs from the definition of mindfulness within the Vajrayana tradition of shamatha (see part III). The definition of mindfulness in the MBCT and Vipassana tradition of Theravada Buddhism resembles 'cultivated awareness' within traditional shamatha or Mahamoudra shamatha meditation of the Vajrayana vehicle.

In traditional shamatha –what is referred to as concentration-based approaches in academic psychology (Bear, 2003)– one is initially calming the mind through mindfulness, in the Indo-Tibetan sense of the word. Mindfulness in this sense of the word ('sukdee' in Sanskrit) is about 'to remember', more specific in shamatha practice: to remember to bring the attention back to the object of meditation (Wallace, 2006a). Only in the later phases of traditional shamatha one is cultivating the quality of the attention through the cultivation of awareness (what is called mindfulness in academic psychology). We will come back to these differences below.

Different researchers within academic psychology have come to the following common definition for mindfulness (Bishop *et al.*, 2004: 232): "Mindfulness is a kind of non-elaborative, non-judgemental, present-centred awareness in which each

thought, feeling or sensation that arises in the attentional field is acknowledged and accepted as it is.". Their definition is based on the descriptions of mindfulness presented in the modern vipassana tradition of Theravada Buddhism (Wallace, 2006b). The vipassana approach views mindfulness as non-discriminating moment-to-moment bare awareness or non-conceptual awareness that does not label or categorize experiences (Wallace, 2006b).

In mindfulness we learn to recognize and observe the individual components that make up the full range of human experience. The exercise is to attend to the different processes and phenomena that occur in the here and now as we are sitting in meditative posture or are engaged in the various activities of our lives (Fenner, 1994). Attention and awareness are considered central to mindfulness (Brown & Ryan, 2004). Also Dimidjian and Linehan (2003) pointed out that mindfulness is about non-judgementally being present, with acceptance. It involves approaching one's experience with an orientation of curiosity and acceptance, regardless of the valence and desirability of the experience (Hayes & Feldman, 2004). The intention is to only be aware of what is occurring in the present moment, to see things as they are, beneath the interpretative filters with which we analyze and add complexity to our experience[16] (Fenner, 1994). Mindfulness meditation is hypothesized to develop a distanced or decentered relationship with one's internal and external experiences[17], to decrease emotional reactivity and to facilitate a return to baseline after reactivity (Hayes *et al.*, 2004). Awareness is the background "radar" of consciousness, continually monitoring the inner and outer environment, while mindfulness captures a quality of consciousness that is characterized by clarity and vividness of current experience and functioning and thus stands in contrast to the mindless, less awake states of habitual or automatic functioning (Brown *et al.*, 2004).

Mindfulness techniques are not considered as relaxation or mood management techniques, but rather as form of mental training to reduce cognitive vulnerability to reactive modes of mind that might otherwise heighten stress and emotional distress or that may otherwise perpetuate psychopathology[18] (Bishop *et al.*, 2004). Mindfulness is therefore similar to a skill that can be developed with practice (Bishop *et al.*, 2004). Once the skills are learned through meditation, this quality of attention

[16] The Indian Middle Path philosopher Candrakirti's theory explains how ordinary people are restricted by their conceptualizations, but practitioners, by achieving a non-conceptual realization of the nature of things, become liberated (Fenner, 1994).

[17] In part III we conceptualised this as the perception of mental contents. We also conceptualised shamatha training as an enskillment, using Gibson's terminology of the education of the perceptual systems.

[18] EEG power findings provide empirical proof for the theoretical assumption that meditators have better capacities to moderate intensity of emotional arousal (Aftanas & Golosheykin, (2005).

can be extended to other situations in life (Bishop *et al.*, 2004). Mindfulness is thus more than meditation, it is a state of consciousness (Brown *et al.*, 2004). Meditation practice is a training used to develop the state or skill of mindfulness (Kabat-Zinn, 2005). Thus mindfulness is not as such a therapy for pathology, but more like the training of mental skills in order to prevent pathology and to improve one's psychological well-being.

Research on mindfulness may in this sense work in parallel with recent efforts to establish a positive psychology (Seligman & Csikszentmihalyi, 2000). Although Western psychology and psychiatry were born out of a concern with pathology, there has been a shift in interest in exploring positive mental health since the seventies (Maslow, 1968; Walsh & Shapiro, 1980; Shapiro, 1980). Finally, Martin Seligman, a psychologist at the university of Pennsylvania, initiated what has later been called positive psychology (Goleman, 2003). This includes the scientific research for well-being and positive human capacities (Goleman, 2003). The aim of positive psychology is to begin to catalyze a change in the focus of psychology from preoccupation only with repairing the worst things in life to also cultivating positive qualities of mind (Dimidjian *et al.*, 2003). Whereas most of the western psychological research had until now focused on pathologies and how to remedy them back to a normal level, now there is more attention for the positive qualities inherent in the human mind, which could be cultivated to levels above normal. This has been the most important focus of Buddhist psychology for centuries, and has for example extensively been described in the Abhidharma literature: namely the consequences of negative mental states and the consequences of positive mental states. In Buddhism positive mental states and the cultivation of these (like compassion, loving kindness, enthusiasm, mindfulness and so on) are used as antidotes against negative mental states (which are considered to have suffering as consequences) such as for example anger, depression, mental agitation, lack of awareness ... (Traleg Rinpoche, 2006).

1.2.2 What is mindfulness training about?

The practice of mindfulness is not a mechanical self-repetition of meditation instructions, but a commitment to reside as best as one can from moment to moment in awareness with an open heart, a spacious, non-judging, non-reactive mind, and without trying to get anywhere, achieve anything, reject anything, or fall into the stream of conceptual wandering (Kabat-Zinn, 2003). One starts by focusing the attention on an object of observation, for example the breath. It is inevitable that people will fall into the stream of conceptual thought and afflictive emotions over and over again (Kabat-Zinn, 2003). This is part of the mindfulness training. This is also the case in the Buddhist traditional shamatha training, but the way one deals with the distractions (thoughts, emotions, etc.) is fundamentally different in the psychological approach. Here, you let whatever comes up as it is and just come back to your primary object of attention, say, your breathing (Kabat-Zinn, 2002). On the other hand, when you are cultivating mindfulness and something arises in the field of your awareness, you might allow it to become the object of your attention, rather than treating it as an intrusion (Kabat-Zinn, 2002) and it is here that lies the main difference with the Buddhist traditional shamatha meditation.

In the initial stages of shamatha meditation, one cultivates mindfulness (in the Indo-Tibetan sense of the term) through always letting go of the interruptions and turning

back to the original object of mindfulness. In Kabat-Zinn's mindfulness training (as in the Mahamoudra-shamatha tradition or in the traditional shamatha practice in the later phases) one is more tolerant to thoughts coming up, not seeing them as an intrusion, but simply being aware of them in a non-judgemental way, not adding any other thoughts to them. This is what is called 'awareness' in these Buddhist traditions, and comes closer to the concept of mindfulness within the academic psychological movement.

Mindfulness (in the psychological or Theravada sense of the word) is like watching clouds, birds, or whatever, going through the sky (Kabat-Zinn, 2002). Your mind is like the sky (awareness itself) and whatever comes up in it –day, night, sun, moon, clouds, birds- is recognized by the mind for what it is, non-conceptually, *a knowing*[19], that is not caught in black or white judgements (Kabat-Zinn, 2002). Mindfulness invites us to see through and underneath discursive thought, beyond the conceptual, by recognizing thoughts as thoughts, as "events" in the field of awareness (Kabat-Zinn, 2002). In part III we conceptualised this as 'perceiving mental contents'. When we drop underneath our thinking, we become aware of how quickly we put our experiences into tidy and unexamined conceptual boxes (Kabat-Zinn, 2002). Through mindfulness we drop underneath the whole process of thought (Kabat-Zinn, 2002). When one notices that one's attention has been caught up by the thoughts, memories and fantasies, the nature of them is briefly noted, if possible, and then attention is returned to the object of meditation. Thus participants are instructed to notice their thoughts and feelings, but not to become absorbed in their content (Kabat-Zinn, 1982).

In traditional shamatha meditation this is especially the focus during the later phases of the meditation, after the attentional stability has been cultivated sufficiently. I think it is very important to know the differences in terminology between cognitive psychology and Buddhism. If we want to find out when mindfulness training is indicated or when it is contra-indicated we need to understand how mindfulness is situated in traditional shamatha training. Mindfulness-based approaches have showed to be effective (see outcome studies below), but this doesn't account for all psychopathologies. In some pathologies, where the attention is in deficit or hyperactive, it could be more indicated to start with an attentional training (as done in the earlier stages of shamatha, through mindfulness in the Indo-Tibetan sense of the word) rather than with mindfulness training in the psychological approach (i.e. the training of awareness in the later stages of shamatha). The fact that in traditional shamatha training one deals with distractions (such as thoughts and

[19] We have discussed this perceptual kind of knowledge in part III, using Gibson's theoretical framework, discussed in part II. It was this kind of knowledge which could not be captured within the cognitive theoretical framework of Smart (*homo symbolicus*) and Wiebe. We will come back to the topic of perceptual knowledge in part V, where we will outline the fundamental differences between scientific knowledge and Buddhist knowledge.

emotions) differently in the early stages as in the later stages has its logic. Therefore a comparative interest in the Buddhist theory on meditation could prove very fruitful to academic psychology.

1.2.3 Mindfulness-based approaches

Mindfulness-Based Stress Reduction (MBSR) is a treatment program originally developed for the management of chronic pain (Kabat-Zinn, 1982; Kabat-Zinn, Lipworth, & Burney, 1985; Kabat-Zinn, Lipworth, Burney, & Sellers, 1987; Kabat-Zinn, 1990). The program is conducted as an 8- to 10-week course for groups of up to 30 participants, who meet weekly for 2-2.5 hours for instruction and practice in mindfulness meditation skills. Several mindfulness meditation skills are taught as well as how to integrate them into daily life. Participants are instructed to practice at least 45 minutes per day, six days per week. They receive tapes to guide their meditation (Kabat-Zinn & Salzberg, 1998). People are told, that they don't need to like it, but they just have to follow the instructions, in order to have results (Kabat-Zinn *et al.*, 1998).

Segal, Williams and Teasdale (2001) proposed mindfulness meditation as a method for the prevention of relapse after depression. Their program, Mindfulness-Based Cognitive Therapy (MBCT) combines training in mindfulness meditation with cognitive therapy that facilitates a detached or de-centred view on one's thoughts (Segal, Williams, & Teasdale, 2002). This 8-week program is largely based on Kabat-Zinn's (1990) MBSR program. Recent innovations in psychological treatment have also seen an increase in the use of mindfulness approaches, like for example Dialectical Behavior therapy (DBT) (Linehan, 1993a; 1993b). DBT provides training in mindfulness meditation to foster improvements in affect tolerance. This is a popular approach for the treatment of borderline personality disorder. These mindfulness skills are taught in a yearlong weekly skills group. Acceptance and Commitment therapy (ACT) does not describe its treatment methods in terms of mindfulness or meditation, but includes several strategies which are consistent with the mindfulness approaches (Hayes, Strosahl, & Wilson, 1999). Mindfulness skills are also included in Relapse Prevention (RP), to prevent relapses in substance abuse (Marlatt & Gordon, 1985).

Several investigators have provided theoretical rationales for integrating mindfulness approaches into the treatment of a wide range of clinical syndromes, including generalized anxiety disorder (Roemer & Orsillo, 2002; Wells, 1999; 2002), post-traumatic stress disorder (Wolfsdorf & Zlotnick, 2001), substance abuse (Marlat, 2002); Breslin, Zack, & McMain, 2002) and eating disorders (Kristeller & Hallett, 1999; Telch, Agras, & Linehan, 2001). Mindfulness starts to become integrated in medical education (Gezella, 2005) as well as in psychological education. Next to the application of mindfulness in clinical settings, it has also proposed to be an important skill for health-care professionals (Epstein, 1999), enabling the physician for example to listen attentively and recognize his/her own errors or refine technical skills. In this sense it has also been proposed to be an important skill for teachers (Ritchhart & Perkins, 2000; Langer, 1993; 2000; Zajonc, 2006). It has also been suggested to use meditation techniques such as mindfulness to train children (Diekstra, 2006). Mindfulness as integrated in many psychotherapeutic approaches has not only been proposed to be applied to several psychological disorders but also for psychological

problems accompanying other illnesses, on theoretical grounds as well as based on outcome studies (see below for an overview).

1.2.4 Clinical outcome studies

A number of studies showed the validity, short- and long-term clinical effectiveness of the MBSR intervention in patients with a wide range of medical conditions (Kabat-Zinn, 1982; Kabat-Zinn, Chapman, & Salmon, 1997; Kabat-Zinn & Chapman-Waldrop, 1988; Kabat-Zinn, Massion, Kristeller, Peterson, Fletcher, Pobert, 1985; Burney & Sellers, 1986; Kabat-Zinn *et al.*, 1992; Salmon *et al.*, 1998; Miller, Fletcher, & Kabat-Zinn, 1995). One important study, including a large randomized controlled trial has showed that MBCT can significantly reduce the rate of relapse in recurrent major depression (Teasdale, Williams, Soulsby, Segal, Ridgeway & Lau, 2000). In another study related to depression, people were found to produce fewer general and more specific memories (Williams, Teasdale, Segal & Soulsby, 2000). Also significant improvements were found in people with generalized anxiety and panic disorders (Kabat-Zinn *et al.*, 1992) and the effects were found to be maintained after a 3-year follow-up (Miller *et al.*, 1995). Statistically significant improvements were found with obsessive neuroses, anxiety, narcissistic and borderline personality disorders (Kutz, Leserman, Dorrington, Morrison, Borysenko, & Benson, 1985), and for binge eating disorder (Kristeller *et al.*, 1999). DBT has shown to reduce self-mutilation and suicidal behaviour in chronically suicidal patients with borderline personality disorder (Linehan, Armstrong, Saurez, Allmon, & Heard, 1991). Significant effects were found on psychological symptoms as well as empathy ratings (Shapiro, Schwartz & Bonner, 1998). Next to findings on the reduction of psychological distress (whether associated with medical or psychological disorders), mindfulness-based interventions have also showed to improve well-being and quality of life (Majumdar, Grossman, Dietz-Waschkowski, Kersig, & Walach, 2002).

Findings showing impressive reductions in psychological problems associated with medical illness through controlled trails, are encouraging, (Reibel, Greeson, Brainard, & Rosenzweig, 2001; Speca, Carlson, Goodey, & Angen, 2000; Carlson, Ursuliak, Goodey, Angen, & Speca, 2001). Several studies have found statistically significant improvements in ratings of pain, as well as other medical symptoms and general psychological symptoms, which were maintained at follow-up evaluations (Kabat-Zinn, 1982; Kabat-Zinn *et al.*, 1985; Kabat-Zinn *et al.*, 1987; Randolph, Caldera, Tacone, & Greak, 1999; Roth & Creasor, 1997; Reibel *et al.*, 2001; Williams, Kolar, Reger, & Pearson, 2001). Mindfulness has also showed to mitigate stress and enhance emotional well-being in non-clinical samples (Astin, 1997; Shapiro *et al.*, 1998; Williams *et al.*, 2001).

Neuroscientific research associated with these mindfulness approaches, has showed significant increases in left-sided activation in the anterior cortical area in the subjects who had undergone MBSR training as compared to the wait-list controls. Left-sided activation in several anterior regions had already been observed during certain forms of positive emotional expression and in subjects with more dispositional positive affect (Davidson, 1992; Davidson, Ekman, Saron, Senulis, & Friesen, 1990). This study also showed that the meditators displayed a significantly greater rise in antibody titers (Kabat-Zinn, 2003). These changes endured for at least four months after the intervention (Kabat-Zinn, 2003). These results signify a real break-through in our thinking of behaviour: our behaviour can namely reshape the brains (Diekstra,

2006). This implies that behavioural training in the form of meditation and other brain-jogging-techniques should become top-priority in the country (Diekstra, 2006). In terms of mental health promotion, mindfulness is worthy of consideration as an important life skill (Hirst, 2003).

Both Bear and Bishop conclude that enough evidence has now accumulated to warrant the development of more methodologically rigorous investigations on MBCT en MBSR (Kabat-Zinn, 2003). Bear (2003) suggests that better designed studies are now needed to substantiate the field and place it on a firm foundation for future growth.

1.2.5 Theoretical explanations for the effects of mindfulness

Several explanations have been proposed within academic psychology for the positive effects of mindfulness. These explanations are mostly drawn from theories within Western academic psychology.

One of the explanations of the effects of mindfulness is that a prolonged observation of current thoughts and emotions, without trying to avoid or escape them, can be compared to exposure (Linehan, 1993a; 1993b). Others have suggested that the de-centered view of one's thoughts as just thoughts, rather than reflections of reality (i.e. meta-cognitive insight), helps people to notice depressogenic thoughts and redirect attention to other aspects of the present moment (Teasdale, 1990; Teasdale, Segal & Williams, 1995). Mindfulness is in this way changing one's *relationship* to inner experience (Teasdale, 1999). Mindfulness as a therapy could therefore be considered a valuable alternative for cognitive therapy, because its focus is precisely not on changing the *content* of depression-related thoughts (Teasdale, 1999). Several authors have noted that improved self-observation resulting from mindfulness training, may promote the use of a range of coping skills (Kabat-Zinn, 1982; Kristeller *et al.*, 1999; Marlatt, 1994; Teasdale *et al.*, 1995; Linehan, 1993b).

Some authors (Goldenberg, Kaplan, Nadeau, Brodeur, Smith, & Schmid, 1994; Kabat-Zinn *et al.*, 1998; Kaplan, Goldenberg, & Galvin, 1993) have indeed suggested that meditation often induces relaxation, which may contribute to the management of disorders, the purpose of mindfulness training however, is not to induce relaxation (Bear, 2003). Whereas a single psychologist may still think that mindfulness meditation is nothing more than a form of relaxation, evidence of electroencephalography (EEG) shows that these are unique forms of consciousness and are not merely degrees of a state of relaxation (Dunn, Hartigan & Mikulas, 1999). EEG findings have also showed that meditation differs significantly from sleep in levels of awareness retained (Naveen & Telles, 2003). Other authors seek to conceptualize mindfulness as a disposition, an enduring trait, rather than a temporary state (Ritchhart & Perkins, 2000). Also comparisons have been made on a conceptual level between mindfulness and intelligence (Brown & Langer, 1990).

Mindfulness-based interventions appear to be conceptually consistent with many other empirically supported treatment approaches (Linehan, 1993a). One of them, however, which I found particularly interesting is the conceptual framework of the Acceptance and Commintment Therapy (ACT). This psychotherapy is based on the Relational Frame Theory (Hayes, 1994, 2002). In this therapy one has to maintain a

non-defensive contact with historically produced private reactions (thoughts, feelings, memories, bodily sensations, ...). The underlying theory of this therapy explains that by attachement and reifying suffering *through language*, human beings amplify their suffering (Hayes, 2002). This latter mechanism can be easily compared with the concept of 'dukkha' in Buddhism as contrasted with the concept of 'sukkha', which could thus be more like 'acceptance' in ACT. We discussed this concept and how it could be operationalised for scientific research in chapter 1 of part III. In chapter 3 of part IV we will show how this concept is related to the activation of brain activity in the left pre-frontal brain.

It would be very interesting to compare what Buddhist psychology means by unlearning habitual tendencies of the mind with defensive strategies described within academic psychology. For example grasping or rejecting, as indicated with the term 'dukkha', which is often translated as suffering, but rather indicates a basic vulnerability to suffering (Ekman, Davidson, Ricard & Wallace, 2005: 60). Psychology has an interesting theory on the role of these defensive strategies in the development of the child and the development of a conceptual self, connected with different kinds of cognitive schemas which are in turn playing an important role in the activation of pathology. Also Buddhist psychology links grasping to the conceptual mind, which fixates on things (narrowing the consciousness), instead of leaving things open, letting come what comes and go what goes (as described in the concept of 'sukkha', as opposite with 'dukkha').

Ekman and colleagues (2005) have defined 'sukkha' as a state of flourishing or happiness that arises from mental balance and insight into the nature of reality, rather than a fleeting emotion or mood aroused by sensory and conceptual stimuli. 'Sukkha' is an enduring trait that arises from a mind in a state of equilibrium and entails conceptually unstructured and unfiltered awareness of the true nature of reality (Ekman *et al.*, 2005: 60). The latter reaction of the mind, is not so well known in Western psychology, but the relatively recent concept of 'acceptance' in ACT comes very close to it. Also Hayes (2002) notices, that even if the methods in ACT were not consciously drawn from Buddhist practice, they have clear parallels there. Where ACT attempts to undermine the *conceptual* self, this gives another slight hint in the direction of Buddhist psychology which is holding the conceptual mind responsible for obscuring perception and is holding this phenomenon responsible for the creation of suffering. Buddhist psychology uses meditation to cut through those conceptual frameworks. This Buddhist explanation can be compared with many of the above explanations, interconnecting some of them. It would take us too far to go deeper into the parallels between psychology and Buddhism in this work. Hayes (2002) suggest that it would however be a real step forward if these concepts and practices could be considered in scientific terms.

Buddhist theories on perception and the role of conceptual consciousness in perception, could throw new light on theories of perception within Western cognitive psychology as well as ecological psychology. The causal relation Buddhism ascribes to the conceptual mode of perception comes close with the theory of cognitive schemas in cognitive psychology or the basic phantasm in psychoanalysis and the role these have in pathology. Buddhism however differs from Western psychology, in the sense that they see a possibility of diminishing the effects of the conceptual frameworks in perception through meditation, making possible a less biased perception of reality. 'Sukkha' as a trait is said to increase as a result of sustained

training. Radical transformation of consciousness necessary to realize 'sukkha' can occur by sustained training in attention, emotional balance and mindfulness, so that one can learn to distinguish between the way things are as they appear to the senses and the conceptual superimpositions one projects upon them (Ekman *et al.*, 2005). As a result of such training, one perceives what is presented to the senses, including one's own mental states, in a way that is closer to their true nature, undistorted by the projections people habitually mistake for reality (Ekman *et al.*, 2005: 60).

1.3 Conclusion: Buddhism and the Mindfulness-approach in psychology

The investigation of mindfulness is still in its infancy and requires great sensitivity and a range of theoretical and methodological glasses to illuminate the richness and complexity of this phenomenon (Shapiro, Carlson, Astin, & Freedman, 2006). There is a clear need for more research, with better designed and more rigorously set-up investigations. An important lack in the study of meditation within academic psychology is the fact that Buddhist techniques are taken out of their context and pulled within an entirely alien theoretical framework, that of Western psychology. Psychology hereby ignores the vast amount of accumulated knowledge within Buddhism itself about meditation. The origin of the mindfulness approaches is being ignored as if Buddhists would have nothing interesting to say about it, while they were the ones who developed these well-appreciated techniques, used and studied within psychology.

My opinion is, that Buddhist psychology really does have interesting things to say about the working mechanisms of meditation, from which, we, psychologists could learn. I think we should at least take them into account, compare them in their similarities and differences with our theories and put these, then again to the test. This could lead to an interesting collaboration between Buddhism and psychology. I think it is very remarkable that psychologists (in contrast to neuropsychologists, or experimental psychology) have not taken a serious look at Buddhist psychology. One of the reasons is that Buddhism is seen as a religion, and psychology, which had to fight for a place on the same level of other sciences, is one of the last to risk itself to be associated with such things as religion. Religion, which is considered a real threat to science in our society, is being carefully avoided and left aside from the scientific debate, because it could severely damage the scientific reputation of psychology. This is also an important issue for me personally and was one of my main motivations to write this thesis, starting from the more legitimate category of comparative religion and cultural sciences, in order to argue and move forth to seeing Buddhism as an interesting partner in the debate and investigation of the mind. In part IV we will take a look at this meta-discussion, whether Buddhism has legitimacy of speaking within this debate, why yes and why not.

However recently there seems to be an evolution of more openness, not only by Ekman, Kabat-Zinn, Shapiro and Linehan, but also by Segal and Teasdale in opening a dialogue with Buddhism. These well-respected authors in the field of psychology have participated in a Mind and Life conference with the Dalai Lama. In this conference also important neuroscientific findings on meditation were presented. We will come back to this below. The Mind and Life institute, seems to have an

important influence on the openness of these scientists towards Buddhism, which also influences the mainstream scientific debate.

2 Mind and Life conferences: A dialogue between Buddhism and science

In contrast with the striking absence of Buddhist participation in academic psychology we see a more active participation of Buddhism in neuro-scientific research concerning the mind and the brain. This participation was enhanced by the Mind and Life conferences, which consist of an intercultural dialogue between well-respected scientists and Buddhists[20]. In this chapter we will give a brief history of these dialogues, to show interesting common areas. The choice of the subjects in these conferences is intertwined with the recent evolutions in neuroscience. In chapter 3 we will discuss how this influenced mainstream academic neuroscience and experimental psychology.

The Mind and Life Institute supports the intercultural scientific understanding and research in first-rate laboratories, resulting in publications in peer-review scientific journals. The aim is to establish a working collaboration between Buddhism and science, in which Buddhism is not merely the object of study but also a partner in the scientific research. They do this by stimulating meetings between scientists and Buddhist practitioners. Topics of these meetings mostly concerned mental health, neuroscience, psychology, but also the differences in Buddhist and Western scientific methodology for investigating the mind. The contents of the conferences evolved in the direction of studying the effects of mental training on human health. We will give a historical overview of these meetings.

Many Mind and Life conferences initiated rigorous scientific research which resulted in findings which cannot just be overlooked by the scientific community. During these conferences, the advice of the Dalai Lama was sought on designing new research. In 2000, for example, an agenda was made during the Mind and Life conference for the experiential neuroscientific research on neuroplasticity. The results of these investigations caused a real break-through and were reviewed in scientific as well as the popular media (see chapter 3). The Dalai Lama and scientists also made agenda's for scientific research on the impact of meditation on the brain functions or mental health, as well as the development of children. The outcomes of those collaborative investigations were presented at the following conferences, in which the practical and theoretical consequences for the sciences were explored with the Dalai Lama. Form the 12th meeting on in 2004, the Mind and Life conferences were no longer held in private, but were open to a public of students, post-docs and people working in the fields of medicine, clinical psychology, psychiatry and neuroscience. Also well-respected authors in the field of psychology who do research on mindfulness-based, secularised meditation forms integrated in psychotherapy were invited to speak.

[20] Also in Belgium, every year, a Buddhist university is organized, in which lectures of Buddhists, as well as scientists are presented, concerning different topics.

In 2004 also a yearly Mind and Life Summer Research Insitute was initiated to train a new generation of scientists in exploring the potential of meditation. In these summer programs, both scientists and contemplatives, students, post-docs and young Buddhists are invited to foster intercultural dialogue and research. Also the daily practice of meditation is a standard part of these summer research programs.

In this chapter we will also go a little deeper on the nature of the dialogue in these Mind and Life conferences and the way they put the discussions to be the central focus of the meetings. Most important in this is an open mind from both Buddhists and scientists. The Dalai Lama for example seems eager to learn new things from science, showing an active interest. He has no problem in either admitting where the Buddhist tradition has been wrong and science right. Neither does he hesitate to question well-established scientific facts and to challenge scientists. The participants often look for ways in which the Buddhist theories could be confirmed or proven wrong, which often resulted in consequent scientific research. The Dalai Lama also dares to admit the points on which the Buddhist traditions and philosophical schools disagree with each other and to invite science and its findings into these discussions. One such difficult topic is perception. We will slightly zoom into this discussion to give the reader a window on the Mind and Life dialogues, but also because it touches on chapter 3 of part II and the subject of Buddhist psychology discussed in chapter 1 of part IV.

2.1 Situating the Mind and Life Conferences

Francisco Varela, a neuroscientist, who was also a Buddhist practitioner and a student of Chögyam Trungpa, organised a summer course about science and Buddhism: 'Contrasting Perspectives in Cognitive Science', which attracted 25 highly qualified experts in Buddhism and scientific theories about the mind (philosophy, neurology, experimental psychology, linguistics, artificial intelligence) (Varela, 2003). Unfortunately this meeting ended up being a real confrontation between two opposite camps, in which none of them listened to the other one (Varela, 2003). This resulted in a heated discussion with terrible misunderstandings (Varela, 2003). A hard lesson on the intercultural dialogue was learned here. From this Varela learned how to avoid these difficulties in the later organisation of the Mind and Life conferences.

The Dalai Lama, a key figure in the Mind and Life conferences has always showed a strong mechanical aptitude and a keen personal interest in the sciences. As a young boy, in Lhasa, he taught himself to fix broken machinery, from clocks over movie projectors to cars. Over the years he has enjoyed relationships with many scientists, including long friendships with the late renowned philosopher of science, Karl Popper, Physicists Carl Von Weizsäcker and the late David Bohm. The Dalai Lama has participated in many conferences on science and spirituality. It was at one such conference, in 1983, in Austria on the Alpbach Symposium on consciousness that he met Francisco Varela. At the table, the Dalai Lama asked Varela whether he was a 'brain scientist' and started a conversation (Varela, 2003). He was keenly interested in science, but had little opportunity for discussion with brains scientists who had some understanding of Tibetan Buddhism. This first meeting, resulted in a series of informal discussions during the next years. During these informal sessions, the Dalai Lama expressed his desire to have more extensive, planned time for mutual discussion and inquiry.

In 1985 both Francisco Varela and Adam Engle wanted to organize a conference on Buddhism and science. Joan Halifax brought them together and Varela proposed to narrow the subject down to Buddhism and cognitive science (Varela, 2003). This would result in the first Mind and Life conference in 1987 in Dharamsala, India. Varela was responsible for the contents of the conference, and invited other scientists, while Engle took the organisational aspects and the fundraising on him. Varela was an honoured scientist who had until then published 200 articles about the biological mechanisms of cognition. He chose scientists to cooperate in the conference, which were well-respected within their given research area, but were also open-minded. Some acquaintance with Buddhism was useful, but not necessary. What was highly necessary was a healthy respect for other ways of thinking and a willingness to listen to the point of view of the other.

The goal of the Mind and Life institute is to support intercultural scientific research and understanding. The conferences are not meant as a forum for contemporary academic controversies. The aim is to establish a powerful working collaboration and research partnership between modern science and Buddhism, through stimulating collaborative research projects and meetings focused on designing research, between laboratory scientists, scholars and practitioners of Buddhism. Over the years the subject matter of the Mind and Life meetings has become more and more focused on topics that provided opportunities for collaborative research between scientists and Buddhists, studying the effects of mental training on human health and well-being. The Mind and Life institute believes that in order for the dialogue between Buddhism and science to have a durable contribution to humanity, collaborative research programs must be conducted in first rate Western scientific laboratories and the results of those studies must be published in prominent peer-review scientific journals. Thus far collaborative research has been focused on collecting data from highly trained meditative adepts using fMRI, EEG, MEG neuro-imaging techniques and other psychological, neurological and immunological measures. Most importantly, these meditative adepts are not only subjects in the classical sense. Instead, they are true collaborators, helping to design the scientific research protocols, and participating in the analysis and the publication of the results.

The purpose of the institute is to promote the creation of a contemplative, compassionate and rigours experimental and experiential science of the mind, which could guide and inform medicine, neuroscience, psychology, education and human development in order to advance knowledge and the potential to alleviate suffering. One of the aims is to publish intellectually rigorous yet accessible publications for the general public, based on Mind and Life meetings and conferences. Based on research findings, educational programs are developed that teach people techniques to enhance human development and alleviate suffering.

2.2 Dialogues between Buddhism and science: a historical overview

Subjects during the first Mind and Life meeting, were the natural sciences, science philosophy (Jeremy Hayward), neurology and medicine (Robert Livingstone), cognitive science (Eleonor Rosch), informatics (Newcomb Greenleaf), neurology and biology (Francisco Varela). This first meeting was considered a real success and the Dalai Lama encouraged the organizers to continue the conferences. This meeting

was transcribed and edited by Varela and Hayward. It was published as the book: 'Gentle Bridges: Conversations with the Dalai Lama on the Sciences of Mind'. The book got translated in French, Spanish, German, Japanese and Chinese. It gives a wide overview of the mind sciences with presentations on the scientific method, mechanisms of perception, cognitive psychology, artificial intelligence, developmental biology of the nervous system and evolution. During the following conferences, Varela was not always the scientific coordinator, but he kept on being a leading force behind the scenes.

The second Mind and Life conference (1989) took place in California and Robert Livingstone took the role of scientific coordinator. The main topic of this meeting was neurology, with presentations from Patricia Churchland (science philosophy), Allan Hobson (sleeping and dreaming), Larry Squrie (memory), Antonio Damasio (neurology) and Lewis Judd (mental health). This conference started on the first morning with the news that the Dalai Lama had won the Noble Price for peace. It has been published as 'Consciousness at the Crossroads: Conversations with the Dalai Lama on Brain Science and Buddhism'. Topics, such as the parallels and differences between Buddhism and neuroscience for examining consciousness were discussed. Their methods of research and verifications were said to be radically different, even if both traditions place great emphasis on experience and reason (we will come back to this subject in part V).

While neuroscience examines mind-brain processes largely objectively, using increasingly sophisticated technology, Buddhism pursues its research chiefly by enhancing stability and clarity of subjective awareness and directs that awareness toward the exploration of cognitive events and other phenomena (as we discussed extensively in part III). Each tradition has its own clearly prescribed techniques for testing hypotheses. However due to their radically different methodologies and isolation from one another, their views have remained quite disparate and incommensurable all these centuries. Another discussion theme was the exploration of the commonalities between Tibetan Buddhism and Western neuroscience with relation to understanding mental disorders and their treatment. The question was asked whether clinical practices in both traditions could benefit from a thorough exchange of theories and empirical research findings.

The third conference (1990) took place in Dharamsala, and Daniel Goleman took the role of scientific coordinator. The main theme was the relation between emotions and health. Buddhists have explored these topics through contemplative practices and logical analysis aimed at the release from physical and mental suffering. Subjects such as experimental psychology, medicine, neurology, philosophy and immunology passed the review. Also Kabat-Zinn was invited to give a presentation on medicine. This conference resulted in the book: "Healing Emotions: Conversations with the Dalai Lama on Mindfulness, Emotions, and Health". This conference initiated the cooperation between different scientists (Clifford Saron, Richard Davidson, Francisco Varela, and Gregory Simpson), to start a project to investigate the effects of meditation on long-term meditators. We will discuss the findings of this research in the next chapter. To facilitate such research, a Mind and Life Research Network (MLRN) was created, in which scientists, interested in research about meditation techniques, were brought together. The Mind and Life Institute was born.

In 1992, the fourth Mind and Life conference was organized by Varela as scientific coordinator. The main themes on this conference were sleeping, dreaming and dying, and the publication involved: 'Sleeping Dreaming and dying: An Exploration of Consciousness with the Dalai Lama'. The fifth conference in 1995 took altruism, ethics and compassion as its subjects and Richard Davidson took the role of scientific coordinator. The dialogue was published as: "Visions of Compassion: Western Scientists and Tibetan Buddhists Examine Human Nature". Western sciences have historically paid much less attention to the human capacity for loving and caring, than they have to the human capacity for violent, destructive behaviour. In this conference a comparison was made between the Western scientific and Tibetan Buddhist theories of the natural state of human beings.

The sixth conference in 1997, with Arthur Zajonc as its scientific coordinator, took the natural sciences and cosmology as its main subject. This conference focused on the epistemological and ontological questions raised by quantum physics and compared these with the Madhyamaka view expounded in Tibetan Buddhism. The question about the relationship between the observed and the observer, was addressed. Quantum physics has raised the question whether science should be reframed to include subjective experience. Particular attempts to integrate subjective or qualitative experience into scientific research were examined. An important discussion theme in the conference was the relationship between experience and experiments in scientific theory, as well as the relationship between experience and knowledge in Buddhist thinking (we will come back to these topics in part V). At the invitation of Anton Zeilinger, who was a participant in this meeting, the dialogue on quantum physics and epistemological questions in quantum physics continued at a smaller meeting (Mind and life seven), held at the institute for Experimental physics in Innsbruck, Austria in 1998. The purpose of this symposium was to compare the epistemologies of Western science, culminating in modern quantum physics and Tibetan Buddhism. Questions such as "What are the roles of observer and consciousness?", "Are there fundamental limits to what can be said about the world?" and "What are the foundations of cognition and experience in the natural sciences?" were addressed.

In 2000, Mind and Life eight was held on the topic of destructive emotions with Daniel Goleman as the scientific coordinator. At this conference presentations were held on what Buddhists mean by destructive emotions (Mattieu Ricard and Thupten Jinpa), the evolution of human emotion (Paul Ekman), the psychobiology of destructive emotions (Richard Davidson), cultural and developmental neuroplasiticity (Mark Greenberg) and finally, Varela and Davidson opened the discussion on a possible future agenda for the experiential neuroscientific research on neuroplasticity. Richard Davidson was enormously inspired by these Mind and Life conferences. He incorporated meditation into his research on neuroplasticity. He also wanted to find out in what way meditation can help to develop positive emotions (Goleman, 2003). His research before this, was mostly focused on how to diminish negative emotions (Goleman, 2003).

During this meeting, the Dalai Lama asked the scientists whether they could develop a secular program which drew from both contemplative practices and Western science, that would help ordinary people reduce the effects of destructive emotions in their lives. Paul Ekman was inspired by this and started a training program for adults: Cultivating Emotional Balance. In his research he wants to show the positive

effects of a secular version of meditation. His program combines meditation techniques, with techniques from western psychology designed to promote the understanding and regulation of emotional life (Goleman, 2003). The core of CEB consists of training the attention and awareness of one's own, as well as other people's emotions. Many scientists who participated in the Mind and Life dialogues, also cooperated in the set-up of CEB: Wallace, Ricard, Davidson and Kabat-Zinn, have been busy working out the training of the attention (Goleman, 2003). Participants in this program will be evaluated using psychosocial and biological measures of emotion and social interaction, before, after and six months after the 8-week training program. Different studies are designed to evaluate the effectiveness of this training program.

Mind and life nine[21]: 'Transformations of Mind, Brain and Emotion', in 2001 was organized in conjunction with the Health Emotions Research Institute and the Center for Research on Mind-Body Interactions at the university of Wisconsin, Madison. Richard Davidson took the role of scientific coordinator. The conference was aimed at understanding the changes produced by meditation practice. In this conference the counsel and collaboration of the Dalai Lama in designing new research on the impact of meditation on brain function was sought and an agenda for future studies of this kind was outlined. Participants were Paul Ekman, Jon Kabat-Zinn, Mattieu Ricard and Antoine Lutz. The meeting began with a tour given by Richard Davidson in the W.M. Keck Laboratory for Functional Brain Imaging and Behavior, a new modern facility for imaging human brain function.

The results obtained from these methods (functional Magnetic Resonance Imaging, Positron Emission Tomography, and brain electrical activity EEG) in a study on the attention strategies of an advanced meditator were presented at the conference. This research was inspired by the former Mind and Life Conference. The relation between human neural plasticity and meditational practices was discussed. The notion of fixed emotional and cognitive competencies is challenged by the Buddhist conception of change and human realization. The evidence found in the research of Davidson confirmed this idea. Practical and theoretical consequences of this challenge for research in the bio-behavioural sciences were explored with the Dalai Lama.

In the tenth mind and life conference in 2002: 'the nature of matter: the nature of life' subjects such as biological evolution, genetics, matter, … were discussed. We will not go deeper into this subject because it is not related to the subject of this article.

21 Varela was unable to attend the conference in person, due to illness and passed away a week later. He did participate by video communication.

The eleventh conference in 2003: 'investigating the mind' has paid attention to the Buddhist meditation methods for investigating the mind, a subject scientists had until then been rather sceptical with, since the use of the mind to investigate itself, is seen as a subjective method. This meeting attempted to identify the common ground between these two empirical traditions. What does each tradition understand the mind to be and on what empirical evidence. The meeting especially focused on differences in methodology. This meeting was co-sponsored by the McGovern institute for Brain Research at MIT.

The discussions in this meeting inspired Mark Greenberg to think of ways to help children to do more with their positive emotions. Greenberg wondered whether programs for social and emotional learning would elicit effects in the brains of children. He sought neurologists, who were prepared to work with him on this topic and wrote a research plan[22] (Goleman, 2003).

Mind and Life twelve was held in 2004 and concerned the subject of 'neuroplasticity'. The scientific coordinator was Richard Davidson. The McGovern institute for Brain Research at MIT co-sponsored the conference. This conference was for the first time not held private, but open to a large audience, consisting primarily of people working in the fields of medicine, clinical psychology, psychiatry and neuroscience, as well as students in these fields. Speakers at this conference were Jon Kabat-Zinn, Richard Davidson, Bennet Shapiro, as well as Zindel Segal and John Teasdale, who both held a great contribution of the acceptance of mindfulness techniques in European academic psychology. The meeting received international media coverage and was included in a cover story on meditation in TIME Magazine. A major question during this meeting, was the nature of mental training and its potential impact on the brain and behaviour. New evidence from studies with highly skilled meditators was presented to show that they can voluntarily alter brain functions through mental practices (we will discuss this in chapter 3 of part IV).

The next Mind and Life conference (thirteen) was held in 2005 on the 'Science and Clinical Applications of Meditation'. This conference was based on the growing interest in meditation within modern medicine and biomedical science, that has arisen over the past thirty years and further explored the emerging clinical opportunities. It was aimed at understanding the basic unifying mechanisms of the brain, mind and body, that underlie awareness and our capacity for learning, growing, and healing.

[22] More details on this can be found on the net www.colorado.edu/cspv/blueprints/model/ten-paths.htm

Training programs to foster intercultural research and dialogue

In 2004 the Mind and Life Institute also started with a yearly Summer Research Institute. The purpose of this is to advance collaborative research among behavioural scientists, neuroscientists and biomedical researchers based on inquiry, dialogue and collaboration with Buddhist contemplative practitioners and scholars. The long term objective is to train a new generation of behavioural scientists, cognitive neuroscientists, clinicians and contemplative scholars interested in exploring the potential influences of meditation and other contemplative practices on mind, behaviour, brain function and health. They want to reach this goal by nurturing the creative dialogue between scientists and Buddhists, to encourage and mentor scientists (graduate students and post-docs) as well as young Buddhists and to advance a collaborative research program. The Mind and Life Summer Research Institute provides training opportunities for young scholars who are in the very early stages of their careers or who are still in training. The Summer Research Institute is guided by well-respected scientists such as Richard Davidson, Evan Thompson, Jon Kabat-Zinn and so on, who are experienced in the area of research concerned in the Summer Research Institute. A great emphasis is put on developing rigorous experimental designs which incorporate first-person methodologies into cognitive-affective neuroscientific research on consciousness.

Both scientific and contemplative presentations presented during the summer research institute are structured in such a way to encourage substantive dialogue. Scientists give talks on subjects closest to their research interest, while contemplatives will respond to these talks by raising relevant connections concerning how specific mind insights might shed light on specific aspects of the brain research. The contemplatives in turn will give talks on topics such as the nature of the mind, or consciousness and the scientists will subsequently respond to these presentations from their perspectives. Each day has one or two scientific topics presented, then discussed and one or two Buddhist topics. The students are required to prepare themselves in advance guided by a reading list. In those summer research programs, meditation is practiced, with appropriate instruction, and is an integral part of the program. Daily meditation sessions take place morning and evening, as well as a day-long mini-retreat, led by the contemplative faculty, to extend and deepen the experience, understanding and challenges of meditation.

2.3 On the nature of the dialogue

The Mind and Life conferences start with a morning session in which Western scientists present their material, in order to brief the Dalai Lama on general scientific background, before the discussion is opened. The session before noon, is a discussion resulting from these morning presentations. These discussions have been the central focus of each Mind and Life meeting. The Mind and Life dialogues focus on in-depth dialogue. The Dalai Lama shows an active interest, in which he sometimes questions a scientific point of view, asks for more clarifications or scientific evidence for certain points of view, or makes links with his own Buddhist tradition. The presentations and discussions are translated by a Tibetan translator, Thupten Jinpa, and a Western translator, Alan Wallace, who had a scientific background and was informed on Tibetan Buddhism as well. Later also José Cabezon translated, who is comfortable with scientific vocabulary in both Tibetan and English. A dialogue that began in an idiom of broad generalities has shifted to a more

concrete conversation that is increasingly cognizant of and more informed about the complex internal texture of the two traditions (Cabezon, 2003).

The Dalai Lama actively participates in the dialogues by asking questions and intensively taking part in the informal open discussions (Hogendoorn, 2006). He has the courage to participate in an open dialogue with scientists, against the advice of many people, who told him, that science, usually makes people doubt about their religion. The Dalai Lama had no hesitation to start this dialogue, because, he was so convinced of the truth of his tradition, and he views science as a tradition, which is, just like his tradition, looking for a truth (Dalai Lama, 2005). Nevertheless the Dalai Lama keeps an open mind and has showed how he is eager to learn from science. The attitude of the Dalai Lama during the Mind and Life dialogues, is not one of trying to convince others of the truth of his tradition. What the Dalai Lama does, is debating in a friendly way, trying to truly understand what the other is trying to explain and link this to his own tradition. In this, the Dalai Lama has no problem of admitting when his tradition might be mistaken. The Dalai Lama (2005) has claimed that if science shows black on white that some claims of Buddhism are wrong, that Buddhists should admit this and accept the findings of science. Even if the opposite would be written in the ancient texts, and would have been accepted for centuries. He actually admitted this on several topics, such as Buddhist cosmology. On the other hand, he has no problem either to question well-established scientific theories, using his logic, there where he is not convinced of their truth. The Dalai Lama's incisive, clear approach and open-minded pursuit of knowledge both challenged and offered inspiration to Western scientists.

The Dalai Lama is also open to admit points of disagreement within different Buddhist philosophical trends. Let's take a look at one fragment of a discussion. In one of the Mind and Life conferences, the Dalai Lama mentioned that one of the subjects under discussion in the Buddhist tradition is perception. This discussion goes back a thousand years in time (Varela, 2003). All the Buddhist traditions agreed that there are two different kinds of cognition: a non-conceptual and a conceptual form (Varela, 2003). The discussion is about whether we are able to perceive objects without the interference of an inner image (i.e. the opinion of Buddhist realists), or whether we are perceiving the object through mental representations (i.e. the opinion of Buddhist idealists). The Buddhist realists believe that the material world exists independent of the mind. The Buddhist idealists on the other hand claim that there is only mind and deny any possible existence of an objective reality. The Prasangika school, on the other hand considers the world and the mind as not independent from each other, even if the reality of the objective world is not denied. According to the latter school, reality is influenced by our language, our conventions and our ideas. This last point of view is also the opinion of the Indo-Tibetan Buddhist philosophy (Dalai Lama in: Varela, 2003).

According to Varela, the latest neuro-scientific findings indicate that perception takes place not only within the perceptual region, but in the broader context of the other mental conditions, such as memory, expectations, and so on (Varela, 2003). According to Davidson, when showing a neutral face to 10 people, none of these will react in the same way, because none of these 10 people have the same emotional temperament (Varela, 2003). Already within the first 200 milliseconds there is a difference between individuals (Varela, 2003). The Dalai Lama, however doesn't seem totally satisfied with this answer and asks whether within these 200

milliseconds we can distinguish a moment of visual perception, without the interference of these conceptual contents (Varela, 2003). The Dalai Lama claims that his hypothesis is that within those first hundred milliseconds, those 10 people should have the same reaction, and only when the conceptual cognitions start to enter the game, we would be able to see differences among these 10 (Varela, 2003). According to him, the temperament, and so on cannot influence this initial moment of visual perception (Varela, 2003). Here we can see how the Dalai Lama doesn't hesitate to say his opinion, even if this seems to deviate from scientific data.

According to Varela and Davidson, however, expectations, memories, associations and so on will have an unavoidable influence in everything the brain does (Varela, 2003). Varela claims that we could investigate this if we would have a refined way of analysing. However during the discussion, Davidson suddenly remembered that this extreme fast mental activity had already been measured and that these brain measurements show that people react in the same way during the first 70 to 100 milliseconds (Varela, 2003). The individual differences only start after 100 milliseconds. Richard Davidson was very surprised that these results were in accordance to the Dalai Lama's hypothesis (Varela, 2003). According to the Buddhist epistemology, this moment, is so short that it is not possible for an untrained mind to perceive it consciously (Wallace, in: Varela, 2003).

In this way, many hypotheses are derived from Buddhist insights, which in turn have been investigated in the laboratories of some scientists. In the Mind and Life conferences the Dalai Lama has sought together with scientists, in what ways certain Buddhist theories could be confirmed or could be proven wrong. He challenged for example Kyssler who didn't agree with his point of view, to prove it wrong with experiments. This inspired Kyssler to actively set up an experiment in order to test out the Dalai Lama's statement (see Goleman, 2003). Because of these dialogues, many scientists returned home with new ideas for research (Goleman, 2003). Buddhism in this way has been practically useful for scientists in the cognitive and neurosciences, as well as for research in emotions and has made a significant contribution to insight (Dalai Lama, 2003b). Many new scientific projects were born from these conferences (Goleman, 2003). The Dalai Lama also actively helped many researchers to find practitioners who were willing to come to the lab. The dialogues have made scientists look at their own work in a new way, which resulted in different new projects (Goleman, 2003). This kind of research is often published in well-respected scientific magazines such as Nature, Science, and Scientific American (Hogendoorn, 2006). For example Alan Wallace and Matthieu Ricard wrote a scientific article together with Paul Ekman and Richard Davidson on the comparison between Buddhist and western psychology (Ekman, *et al.*, 2005). This attention explains the presence of the Dalai Lama during the annual conference of the American Society for Neuroscience in 2005 (Hogendoorn, 2006). We will come back to this in part V.

3 Buddhist influences in academic neuroscience and experimental psychology

It is not my intention to give a complete overview of all studies done in these areas. This would ask an extensive work in itself. I will only highlight some studies, to show how Buddhists collaborated with scientists in different ways. Some Buddhist statements are being put to the test by these studies: for example that meditation contributes to a happier life. The studies discussed, also question certain assumptions made by neuroscience, which had acquired the status of facts: for example that the brain cannot be altered. Once its structure has been formed in childhood, it cannot be changed. Another well-established assumption is that reflexes cannot be influenced at will by human beings. Another assumption in science was that attention is a fixed capacity which cannot be changed. All these assumptions have become subjected to controversy again. The study of well-trained Buddhists, showed some anomalies, which cannot be explained by current scientific theories. For example that different meditational practices consistently elicit different neural signatures and that meditation elicits a pre-frontal tendency to the left. The latter is a brain area associated with positive emotions and happiness.

For the explanations of the results, both neuro-scientific findings, as well as Buddhist theories and explanations are taken into account, which in turn need to be subjected to more research. We will also make the link between the possible theoretical explanation (acceptance and 'sukkha', discussed in chapter 1 of this part) for the positive effects in the outcome studies on mindfulness-based approaches in academic psychology and a neuroscientific operationalisation of this. This pre-frontal tendency to the left is not only the result during and after meditation, but findings suggest that it can be cultivated on the long-term, leading to long-lasting changes in cognition and emotion. Findings of these neuroscientific studies suggest that mental training can induce both short-term and long-term changes in the brain. These studies suggest that attentional (cf. traditional shamatha meditation) and affective processes are skills that can be trained. Studies in experimental psychology suggest that perception (as trained in shamatha, see in chapter 2 of part III) and empathy are skills that can be trained.

3.1 Results from the collaboration of neuro-scientific research with Buddhism

In Western laboratories, for decennia, there have been tests, in which monks and yogi's have cooperated (Goleman, 2003). In 1992 a couple of scientists (Davidson, Varela, Saron and Simson) travelled to India to do some research with monks and yogi's (Varela, 2003). Allan Wallace went along to do the translation. This research was initiated by a Mind and Life congress, in which the Dalai Lama had asked these scientists to do research on the brain activity of experienced meditators and yogi's who lived in small huts in the mountains North of Dharamsala (Varela, 2003). During a couple of weeks, this research team went on with their EEG-instruments and an introduction letter of the Dalai Lama to visit these yogi's. In his letter, the Dalai Lama tried to motivate those hermits to cooperate in this research, because he believes the scientific investigation of the consciousness of a meditating person, would be very important (Dalai Lama, 2005). Every day again, however the scientists were confronted with an enormous scepsis and many of the yogi's were not at all prepared to cooperate in the research (Varela, 2003). Next to that, this kind of

research is very limited, and not at all comparable to the kind of measurements derived under the strict conditions and precision of a laboratory (Varela, 2003). Since then, the research on meditation has evolved a lot, along with the innovations in neuro-scientific research.

3.1.1 Different meditational practices consistently elicit corresponding neural signatures

The following research (Goleman, 2003) was also inspired by the Mind and Life dialogues in Dharamsala. Lama Öser (fictive name) had undergone extensive training, of which, two and a half years in complete isolation, the other years he also continued his practice. This lama would now in the laboratory elicit different of the kinds of meditative states, he had learned to cultivate during his life. Of all the different possible mental trainings, here visualisation, one-pointed concentration and the cultivation of compassion were being investigated. Visualisation is about constructing a complete and detailed image of a Tibetan Buddhist deity. One-pointed concentration requires that one is not distracted by the thousand-and-one other thoughts and desires. Next to these three, Öser also proposed three other states of mind that he had been training during his life and of which he expected to elicit different neural signatures: meditation on devotion, being without fear and the 'open state'. What he called the 'open state', involved a thought-free state of consciousness, open, free and conscious, without any intentional mental activity. The mind is not directed to anything particular, but is consciously fully present. If thoughts come up, they don't start forming longer thought-trains, but pass away[23]. Here, Buddhism is not only object of scientific research, but the Buddhist lama, is actively participating in the set-up of the research. Lama Öser believed that these six ways of meditation, would deliver six different brain-images. If this would be possible, this would be a primeur.

The fMRI shows how Öser was capable of regulating certain brain activities with the help of his mental practice. The brain of Öser, showed clear differences between the range of stable patterns of brain activity, which are neural signatures of the different mental states elicited by the six meditations. These patterns could be replicated by the subject at will, depending on the choice of meditative practice. What was so remarkable in the measurements of Ösers mental states, was the consistency of each different mental state, as well as the fact that he could keep this state for about a minute, as agreed, and consequently go back to the mental state of before, for also about one minute and that he repeated this chain of mental states 5 times. According to Davidson, there was a remarkable consistency between the mental states and the brain patterns.

[23] The open state makes us think of what is called 'awareness' in traditional shamatha meditation or 'mindfulness' in academic psychology.

3.1.2 Meditation induces a pre-frontal tendency to the left

In the same experiment with Lama Öser (Goleman, 2003), the scientists registered an enormous acceleration in gamma electrical activity, in the left part of the middle frontal gyrus during his meditation on compassion. Earlier research by Davidson showed, that this is the place for positive emotions. Until now, compassion, as an emotional state, had been completely neglected in modern scientific psychological research. Psychological research has especially focused on depression and fear instead of the positive qualities of the mind. If these results would be the consequence of training, this would have far-reaching implications for the potential of human development. In order to find out whether this is the consequence of training or whether this is a specific quality of Öser, Davidson requested the Dalai Lama to provide other well-trained practitioners.

In a similar study, Davidson (2003) measured the brain activity of a Geshe in his lab, in order to compare this with 175 controls. The Geshe had exercised the cultivation of compassion for 30 years. The measurements of the brain activity of the Geshe differed significantly from the other 175 measurements, with respect to his left and right brain activity. These measurements indicate an extremely positive prefrontal tendency, which was situated three standard deviations above the mean. This indicates an extreme deviation from the normal state of mind (an untrained mind). This research is in accordance with other research, which also showed an effect of meditation in the left pre-frontal brain areas (Cahn & Polich, 2006). Increases were observed in fast theta power and slow alpha power on EEG predominantly in the frontal area during meditation (Takahashi, Murata, Hamada, Omori, Kosaka, Kikuchi, Yoshida, & Wada, 2005).

3.1.3 Buddhist theories in mainstream academic neuroscience

For the explanation of these pre-frontal tendencies to the left, neuroscientists not only get inspiration from earlier neuro-scientific research, which indicated that these areas correspond with positive feelings. Also Buddhist theories are taken into account, in order to explain these findings. In Sanskrit the word ‘sukkha’ stands for a feeling of contentment and peaceful joy, which is present, unrelated to any circumstances (Davidson, 2003). ‘Sukkha’ differs from normal joy, in the sense that it is independent of the circumstances. According to Davidson (2003) we could see the pre-frontal emphasis to the left as a hypothetical operationalisation of ‘sukkha’. As we noted earlier (in chapter 1 of part IV), the theory on ‘sukkha’ also has connections with the theory of ‘acceptance therapy’, which is, however, still an unexplored link between these remarkable neuroscientific findings and the promising outcome studies within academic psychology and psychotherapy, who consistently show positive effects on mental health as a consequence of mindfulness-based approaches and ACT, and moreover share this possible theoretical explanation (!). Where the Mind and Life conferences open up a space where Buddhist theories can be taken into account by scientists, still very little scientific literature within mainstream academic science has been published on this topic. One article, resulting from a collaboration between two well-respected Buddhists and two well-respected scientists after a Mind and Life conference, has been published on the topic of ‘sukkha’ (Ekman *et al.*, 2005). In the mindfulness branch of academic psychology, however, no articles concerning Buddhist theories as an explanation for the positive

results, have been published. However mention has been made, that it would be an interesting line of thought to follow.

3.1.4 Neuroplasticity: long-term effects of meditation on the brain

Ten yeas ago, the assumption that the brain was unchangeable, was widely accepted in neuroscience and every future neuroscientist had to learn this from his textbooks (Davidson, 2003). It was a matter of fact that the central nervous system cannot generate any new neurons (Davidson, 2003). This was no longer considered a theory but a hard fact (Davidson, 2003). However, recently there was new scientific evidence for neuroplasticity. By the end of 2005, Davidson made breaking news with his research on the plasticity of the brains, the ability of the brain to adapt to specific circumstances (Hogendoorn, 2006). Neuroplasticity implies that the brain continually undergoes changes as a consequence of our experiences. New connections between neurons are being formed, or new neurons are being formed (Goleman, 2003). Research has led to new insights into the ways experience changes the brain. It has shown that the brain is not static, but rather is dynamically changing and undergoes such changes throughout one's entire life. For example a musician who practices for years (Goleman, 2003).

Some Buddhist claims, such as the possibility of mental training, seem to be in line with these recent findings. For instance trained meditators claim to be able to hold their attention on a single object for hours. These claims contradict Western reports that attention cannot be held that long or would be a fixed capacity that cannot be changed. The studies presented below, indicate that mental practice such as meditation, can influence the brain and human well-being. According to Davidson, mental training through meditation is possible because the structure of the brain can change (Goleman, 2003). Neuroplasticity refers to structural and functional changes in the brain that are brought about by training and experience. Probably such an effect is also induced by meditation (Goleman, 2003).

The beginning of such changes were also found with people who have only started with the mindfulness variant of meditation (Goleman, 2003). Beginning meditators showed beginning biological changes in the same direction (Goleman, 2003). One investigation measured the brain activity in subjects, after a 10-week program of meditation in comparison with a control group (Davidson, 2003). The subjects received weekly lessons in meditation, and practiced meditation daily (45 minutes) (Davidson, 2003). In this study, also a significantly higher activity in the left frontal area in the brain was measured in the experimental group as compared to the control group. Moreover, less activity was found in those part of the brains, which are associated with negative emotions, such as depression (Hogendoorn, 2006). This is in accordance with the results mentioned earlier. This frontal tendency to the left, corresponded with reports of the subjects, of having less fear, less negative emotions and more positive emotions. The meditation-group also showed a stronger immune reaction than the control group (Davidson, 2003). Four months after the meditation training, the rise of activity in the left side of the brain was still measurable (Davidson, 2003). This raises the hypothesis that the brain can be more than altered temporarily through meditation, but can be changed on the long term through mental practice.

In 2004 Richard Davidson, Matthieu Ricard and colleagues published new scientific evidence for the effects elicited by meditation in the brain that seem to confirm the Buddhist statement that mental training can have a long-lasting transformative effect on a person: “Long-term meditators self-induce high-amplitude gamma synchrony during mental practice” (Lutz, Greishar, Rawlings, Ricard & Davidson, 2004). The practitioners under study understand meditation or mental training to be a process of familiarization with one’s own mental life leading to long-lasting changes in cognition and emotion (Lutz *et al.*, 2004). This study wants to find out more about this process and its impact on the brain. The subjects were eight long-term Buddhist practitioners and 10 healthy student volunteers. Buddhist practitioners underwent mental training in the Tibetan Nyingmapa and Kaguypa traditions for 10.000 to 50.000 hours over time periods ranging from 15 to 40 years (Lutz *et al.*, 2004). The length of their training was estimated based on their daily practice and the time they spent in meditative retreats. Control subjects had no previous meditative experience, but had declared an interest in meditation. They underwent meditative training for one week before the collection of data (Lutz *et al.*, 2004). The instruction was to arouse a state of unconditional loving-kindness and compassion, and is described as an unrestricted readiness and availability to help living beings (Lutz *et al.*, 2004).

They found that long-term Buddhist practitioners self-induce sustained electro-encephalographic high-amplitude gamma-band oscillations and phase-synchrony during meditation (Lutz *et al.*, 2004). These electro-encephalogram patterns differ from those of controls, in particular over lateral fronto-parietal electrodes (Lutz *et al.*, 2004). Moreover, the ratio gamma-band activity over medial fronto-parietal electrodes is initially higher in the resting baseline before meditation for the practitioners, than the controls (Lutz *et al.*, 2004). This difference increases sharply during meditation over most of the scalp electrodes and remains higher than the initial baseline in the post-meditation baseline. These data suggest that mental training may induce short-term and long-term neural changes (Lutz *et al.*, 2004).

This study suggests that attention and affective processes, which gamma-band EEG synchronization may reflect, are flexible skills that can be trained (Lutz *et al.*, 2004). It remains for future studies to show that these EEG signatures are caused by long-term training and not by individual differences before the training, although the positive correlation that was found with hours of training and other randomized controlled trials suggest that these are training-related effects (Lutz *et al.*, 2004). In this scientific article the Dalai Lama was explicitly acknowledge for his advice and encouragement in the research (Lutz *et al.*, 2004).

The American weekly magazine ‘Time’ elected Richard J. Davidson as one of the hundred most influential people in the world in 2006. According to the magazine, his corporation with the fourteenth Dalai Lama, for the first time, brought two traditions together, which are both interested in the workings of the mind and the brain: eastern meditation and Western neuroscience (Hogendoorn, 2006). According to Davidson (2003) neuroplasticity will lead to significant changes in psychology. For example: the problem with medication is, that if you give someone a pill to cure for example depression, this will influence all chemical processes in the brain, all of which, have their own consequences (Davidson, 2003). The result is that there are a lot of unwanted side-effects (Davidson, 2003). If meditation shows to have specific effects only in the desired brain areas, it will gain great importance within science and society as a means to change the brain (Davidson, 2003). The Dalai Lama

(2005) adds on this subject that the seventh century philosopher Dharmakirti already claimed that by disciplined practice of meditation, the human consciousness can be significantly transformed. He compared mental training with the physical training of athletes (Dalai Lama, 2005). According to the Dalai Lama (2005) the possibility for a positive transformation of the mind is already given in the mind itself.

3.2 A cooperation between experimental psychology and Buddhism

3.2.1 Deviating results on empathy and perception

Paul Ekman, a well-respected scientist on emotions, also inspired by the Mind and Life dialogues, came up with some remarkable results (Goleman, 2003). In his research, lama Öser also cooperated (Goleman, 2003). This research implied recognizing the face expressions of people, in order to test the capacity of empathy (Goleman, 2003). Ekman expected that some years of meditative training would train this capacity. Öser and another well-trained Western meditator scored higher than 5000 other subjects, who had done the test. They scored two standard deviations above the mean (Goleman, 2003). They even scored higher than police-officers, loyers, psychiaters and judges (Goleman, 2003).

According to the Dalai Lama, two different variables can explain these results: a higher speed in perception, as well as being fine-tuned on the feelings of other people (Goleman, 2003). The Dalai Lama here, participates in the scientific research, namely in the search for an explanation of the results found in the lab. These results are in accordance with earlier research on meditation which showed better auditory receptivity and perceptual discrimination, improved reaction times and increased capacity to attend in meditation groups than in control groups (Davidson *et al.*, 1976; Shaw & Kolb, 1977; Brown *et al.*, 1974; Graham, 1975; Priot, 1973; Udupa *et al.*, 1973; Holt, Caruso & Riley, 1978; Lesh, 1970; Leung, 1973). The above indicates that meditation influences perceptual abilities.

Other recent studies also showed effects of meditation on perception. Antoine Lutz, a colleague of Varela, who is expert in cognitive neuroscience, also investigated the attentional preparation strategies such as ‘one-pointed concentration’ (i.e. the result of traditional shamatha training, as discussed in chapter 2 of part III) and the ‘open state’ (i.e. the training of the skill ‘awareness’ in shamatha meditation, see chapter 2 of part III) (Goleman, 2003). In one of the experiments they tried to find out whether the way someone sees things, is influenced by his state of mind, such as the everyday state of mind or a meditative state of mind (Goleman, 2003). There appear to be differences between these two meditative states as well as the everyday state of mind (Goleman, 2003).

3.2.2 Scientific anomalies: reflexes can be controlled intentionally

Another experiment conducted by Paul Ekman and Robert Levenson, shows how people normally react on a very loud and unexpected noise or a sudden shocking image. Usually people react with very fast movements in the facial muscles, which lasts a third of a second. This is a reflex, which is not under the control of the will of human beings, since it originates in one of the most primitive parts of the brain (Goleman, 2003). According to the present state of scientific research, this reflex

cannot be intentionally influenced (Goleman, 2003). Öser was asked to repress this reflex, something which no-one (not even sharpshooters or police officers, who are practicing daily with guns) before had been capable of doing in this type of experiments (Goleman, 2003). Öser was capable of repressing this reflex, by using two kinds of meditations: 'one-pointed concentration' and the 'open state' (Goleman, 2003).

In the open state, no muscle in Ösers face moved (Goleman, 2003). Öser explained that his mind was not disturbed by the sound, in the 'open state' it seemed something neutral, like a bird flying through the sky (Goleman, 2003). His physiological values (heartbeat, production of sweat, blood pressure), however showed the typical changes involved in this reflex. During the 'one-pointed concentration', however, in contrast to the 'open state', instead of a rise, there was a drop in the heartbeat and the blood pressure, but his facial expression did change (Goleman, 2003). While in all the other subjects, the eyebrows went down, with Öser, they went up (Goleman, 2003). These results show important anomalies in what was until now known in psychology. In consequence of this research, Paul Ekman started the Extra-ordinary Persons Project[24] with Lama Öser, in order to do research on the positive potential of the mind which can be cultivated through mental training.

[24] For more information, see: www.paulekman.com

4 Meditation as a complementary tool in the scientific investigation of consciousness

In part III we drew an image of Buddhism which was different than the image of Buddhism given by the comparative religion studies, due to our new conceptual tools. Suddenly Buddhism appeared to us as a learning environment in which people could discover things for themselves, more precisely the true nature of the mind (chapter 1 in part III). In chapter 2 of part III we showed how shamatha meditation can be conceptualised as a training of the mind, which results in a finely honed perceptual tool, by which the movements of the mind can be precisely observed. We also discussed how the mind is pacified in a way that it becomes a new learning environment, in which the mind itself and the formation of our phenomenological reality can be observed (chapter 3 of part IV). This raised the question whether Buddhist knowledge and Buddhist methodologies could offer something extra to the scientific investigation of the mind. From our point of view in discussing Buddhism, this seems to be a logic conclusion, but how do scientists think about this? Do they feel the need to expand their knowledge and research methods or to take up the dialogue on Buddhist methodologies? Above we have discussed how Buddhists participated and were partners in scientific research.

Certain neuroscientists don't hesitate to even go further in this collaboration and have proposed meditation to become one of the scientific methodologies in investigating the mind as an answer to the current limitations in methodology in the scientific study of consciousness. In the Royal Society in London, in 1994, this problem of the explanatory gap was discussed in a conference on consciousness: 'Consciousness – its place in Contemporary Science". The problem was outlined that by definition third-person methodologies can't directly observe *mental* phenomena. However, when one participant suggested that research into consciousness must include the first-person perspective, a number of his colleagues expressed consternation (Wallace, 2000). We will give a short overview on the logic these scientists follow in even daring to propose meditation as a research tool in mainstream neuroscience, risking their well-respected reputations. Where such a proposal, would earlier have been answered to with nothing more than consternation, currently this has opened a real debate between scientists in mainstream academic neuroscience.

We will first discuss the problems concerning the shortcomings of the current methodologies in neuroscience. We will discuss the arguments that the study of the mind, because of its inherent subjective nature, needs a first-person methodology, as well as the problems this methodology raised with the early introspectionists in psychology. Psychology and neuroscience are the study not only of the brain, but of *subjective mental phenomena* and their relation to the brain. The current lack in science is to find a systematic method for the measurement and description of *mental* processes. Therefore the science of the brain and the mind cannot only rely on third-person methodologies. The extension of this scientific objectivity was no more than an aura of utter indisputability and this first-person-dimension was lost in the process. Until now this first-person-dimension is only accepted as a measured variable or is measured by verbal questioning or questionnaires. The first-person methodologies didn't keep pace with the advanced third-person methodologies. However, it is with first-person observations alone that we can have direct access to the *mental phenomena* central in cognitive science.

One problem with early introspectionism that was never overcome, is the instability and lack of clarity of the attention. A rigorous methodology in this appears crucial. Varela and his colleagues examined the possibility of a disciplined approach for the study of subjective experiences in 'the View from Within'. In this work, he provided a basis for a science of consciousness which includes first-person methods to study subjective experiences. He wanted to provide a clear procedure for accessing the phenomenal domain and a clear means for validation within a community of observers. According to these scientists, the mind is characterized by instability and non-presence and mental training of the attention and meta-cognition is necessary to make trustworthy first-person observations. For this, many scientists have looked at Buddhist methodologies for observing the mind.

As we discussed extensively in chapter 2 of part III, shamatha meditation offers a systematic method to refine the attention so that the mind may be a more effective instrument in observing mental phenomena. We will discuss the fundamental differences between introspection and shamatha as a tool to investigate the mind. Buddhism makes a distinction between being aware of what is going on in the mind and thinking about thoughts. Shamatha meditation is exactly about cutting through the attitude of introspection in the sense of thinking about thoughts. Shamatha meditation is about observing one's experience without any *a priori* opinions, presuppositions or hypotheses that can influence the analysis or bias the observation of the mind. That is why shamatha meditation is proposed as an instrument to observe the bare facts of perceiving the mental environment, without imputing them with conceptual layers. This yields an experiential knowledge, a knowledge by presence. Whether the claim that the mental training of the mind as an unbiased research tool can be trusted is an empirical question. The Shamatha project is a rigorously scientifically set-up experiment which tests this hypothesis.

An important counter-argument is that in science, knowledge has to be publicly retraceable, so that we don't end up with one scientist's word against that of the other. This argument is answered to by the proposal of 'mutual circulation', in which Buddhist methodologies are matched with third-person methodologies in the investigation. This will enable scientists to have a better insight in the experiential and biological basis of mental phenomena to pinpoint neural correlates of conscious experience with increasing accuracy.

4.1 The explanatory gap: limits in the study of consciousness

For many years, Western mind science investigated cognitive processes, such as reasoning, perception, imagery and attention, with little or no concern for subjective experience. In 1913 John B. Watson declared that psychologists must avoid the use of all subjective terms such as sensations, perception, imagery, desire, purpose and even thinking and emotion. Following this, behaviourists reduced subjective phenomena to a class of objective processes that *could be studied with the available tools of science*. When the limitations of behaviourism became increasingly apparent in terms of understanding the mind, much of the emphasis shifted to neuro-scientific research, which reduced subjective mental events to objective brain activity (Wallace, 2000). With the return of cognitive psychology during the 1960's, subjective experience was once again allowed as an object of research. But the role of introspection, as a tool to investigate mental processes in exploring the mind was still marginalized in the field. According to Wallace (2002a), that is the reason why so

many questions about subjects like for example consciousness, remain unanswered. His (2006c) argument to this is that the subjective world is invisible to the third-person methodology of scientific inquiry and has therefore not been studied in a direct way. In affective-cognitive neuroscience there is currently more interest in the experiential aspects of mental processes.

A large body of modern literature now addresses the explanatory gap between computational and phenomenological mind (Varela & Shear, 1999). This is Jackendoff's (1987) terminology. Also Joseph Levine (1983) states that any attempt to construct materialist reductions of phenomenal states, leaves us with an explanatory gap. There is still no adequate explanation of how brain activity gives rise to consciousness and of what causal role consciousness may play in the brain's workings. There is no hard scientific evidence that explains how the mind is related to the brain (Wallace, 2002b). For example, pains occur when and only when parietal nociceptive-specific neurons are active. Materialists identify pain with the firing of nociceptive-specific neurons in the parietal cortex (Papineau, 2002). But in this way materialists will still lack any explanation of why nociceptive-specific neurons yield pain, why the firing of this neurons *feels* like that (Papineau, 2002). Like this, any theory that identifies a certain phenomenal (i.e. subjective) experience with some material property, however well-supported the theory may be, will still leave us in the dark as to why these material movements in the brain yield this subjective experience (Papineau, 2002). Levine (1983) argues that this explanatory gap is peculiar to attempted materialist reductions of phenomenal states. The physical facts do not explain why certain brain states constitute certain feelings or how brains give rise to pains, colour experiences and all the rest of the rich phenomenal life. How could squichy grey matter possibly do all that (Papineau, 2002)?

The formulation of the explanatory gap shows how the current methodologies don't capture all aspects of the object of study (the brain *and* the mind). According to Wallace (2002b), science has not yet developed any scientific methodology which is able to make *consciousness itself* visible. The phenomenal data cannot be derived from the third-person perspective (Varela *et al.*, 1999). Therefore cognitive neuroscience often appears to be a theory of mind that leaves phenomenality or subjectivity out (Varela *et al.*, 1999). However, Varela and colleagues (1999) argue that we shouldn't deprive our scientific examination of this phenomenal realm. They argue for a fundamental swift in the scientific methodology of the mind. Mental phenomena are subjective *by definition*, unlike physical phenomena (Wallace, 2006). This is exactly the characterizing nature of our object of investigation in the study of the mind. That is why our way of studying them, cannot be an exact copy of sciences such as physics for example.

At the dawn of psychology as a science, the pioneering American psychologist William James (1890, 1892) defined this discipline as the study of *subjective* mental phenomena and their relation to the brain. Phenomenological mind is unavoidably phrased in terms of subjectivity, consciousness, or experience (Varela *et al.*, 1999). According to deCharms (1999), if science wants to find an explanation, *not only for the brain, but also for the mind*, it is unavoidable to find a systematic method for the measurement and description of *mental processes*. Only in this way the mind (not only the brain) and its functions can be explained (deCharms, 1999). Therefore it would be a mistake to suppose that research into phenomenal consciousness can proceed just like other kinds of scientific research (Papineau, 2002).

So since consciousness is essentially a phenomenological matter, if psychology wants to take the investigation of it seriously, it has to become a special case within positive science (Pickering, 1995). According to Latour, scientists have gone astray, when trying to apply the natural sciences to the social ones. What they saw as an extension of scientific objectivity was, according to Latour (2004) nothing more than an aura of utter indisputability they had prematurely endowed the sciences with. He states that a general methodology for all sciences, would either submit the social sciences to the mere importation of the apparently more successful natural sciences or would dismiss the social sciences as hopelessly unscientific. In order to be genuinely scientific, Latour (2004) argues, the social sciences should run a risk, which includes rethinking their methods and reshaping their setting in order to render talkative what was until then mute. What is being problamatized here is that the mental processes are not fully studied. Varela and colleagues (1999) dared to take this risk and argued that to accept experience as a domain to be explored, one has to accept the fact that the mind includes this first-person dimension (Varela *et al.*, 1999). First-person events are the lived *experience* associated with cognitive and mental events (Varela *et al.*, 1999).

However neuroscience does make use of first-person observations of the mind in its investigations. Neuroscience accepts first-person accounts and subjective experiences as a *measured variable*. Many tests are based on subjective accounts. However, the tests are carefully designed to avoid any kind of bias and a number of experimental artefacts. Ideally subjective experiences are coupled to instrumental measures to keep everything under tight control. To identify the material referents of phenomenal concepts, bridging the gap between external and internal descriptions, subjects are asked to tell when they are in pain, then the experimenter checks what is going on inside their brains by EEG, PET or MRI (Papineau, 2002). So with research into phenomenal consciousness, we start with subjects first-person accounts of when they are in pain, or when they are seeing a picture of an elephant and so on. On this basis, we aim to develop a theory which will tell us about the material constitution of these states (Papineau, 2002). If we want to know what happens in the brain, when one is holding a mental image in one's attentional field, the only way to really get insight in the different effects on the visual cortex, is by asking people to tell what exactly they were mentally doing at the moment their brains were observed (Varela, 2003). If science is not using this first-person information, she looks with only half an eye, according to Varela (2003). It is with first-person observations alone that we can have direct access to mental phenomena (Wallace, 2002b).

According to Varela and Shear (1999b), however, psychology and neuroscience have done precious little to study the structure of subjective experience beyond what can be gleamed from verbal questioning and behavioural measurements. The study of the first-person dimension of the mind had until then not kept pace with the advances in third-person methodologies. The third-person methodologies are the standard observers of scientific discourse (Varela *et al.*, 1999). It is a pure form of objective science (Varela *et al.*, 1999). This has led many to deny that the scientific study of conscious experience was possible and has raised the question whether one can be objective about the subjective. Since James's time, great advances have been made in the behavioural and brain sciences, but no comparable development of rigorous methods for observing one's own mental phenomena has been made (Wallace, 2002b). Introspection, in early psychology was an important means of

accumulating scientific data concerning mental phenomena, but they failed to produce a method for reliable observation of mental phenomena (Wallace, 2000). The word of the introspectionist was the final authority with regard to mental data and they were often mutually incompatible (Wallace, 2000). Introspectionists were confronted with the unovercomable problem of contradictory interpretations (Vermersch, 1999). After this failure, psychology became determined at all costs to associate itself with the physical sciences, thus methodology took precedence over subject matter (Wallace, 2000).

According to Wallace (2006), the failure of the introspective movement in early psychology, is that they didn't find a solution to the problem of the instability of the attention. No matter how educated a cell biologist may be, if the microscope used in research is mounted on an unstable platform so that it frequently jiggles, if its optical system has poor resolution and if the subject under examination is poorly illuminated, it will be impossible to collect reliable empirical data (Wallace, 2000). Likewise, if the attention of a person practicing introspection is frequently agitated, and if there is little clarity or precision in one's introspective observations, then the reliability of this mode of inquiry is undermined (Wallace, 2000).

The question raised here is how to refine the attention so that the mind may be a more effective instrument in observing that range of phenomena (Wallace, 2000). The real question is not whether we have introspective access to mental phenomena, but how this faculty operates (Wallace, 2000). A major question to scientific research is whether that faculty can be refined so that it can be used to probe mental phenomena more deeply, clearly and reliably (Wallace, 2000). The untrained attention is habitually prone to alternating bouts of agitation and dullness, so if the mind is to be used as a reliable tool for exploring consciousness, these dysfunctional traits need to be replaced with attentional stability and vividness (Wallace, 2002a). Without a sustained examination, we actually do not produce phenomenal descriptions that are rich and subtly interconnected enough. A rigorous methodology in this appears crucial. Modern science has never developed a rigorous introspective methodology for observing the phenomena of conscious mental processes. According to Wallace (2002b), the fact that this mode of observation has not been developed into a scientific discipline, is a likely reason why cognitive scientists have still failed to understand consciousness. He argues that in order to transform the mind into a suitable instrument for scientific exploration, the stability and vividness of the attention must be developed to a high degree.

4.2 First-person methodologies to investigate mental phenomena directly

According to Davidson a lot of emotion research is based on the reports of people about their experiences (in Varela, 2003). The second-person methodology consists of a person who interviews another person about his experiences (Varela, 2003). A more trivial form of second person inquiry is to ask a person to fill out a questionnaire (Varela, 2003). This is the way in which first-person observation has been used for years as a technique within psychology and the cognitive sciences (Varela, 2003). It is the basis for an enormous body of literature about subjective well-being. However this is based on such a superficial introspective research, that it is no wonder that it is so problematic (Davidson in: Varela, 2003). It will be important for future research to bring in subjects who received systematic training

and will be able to give better descriptions of their inner experiences (Davidson in: Varela, 2003).

In his book "The Embodied Mind", Varela argues that if cognitive science is to include human experience, it must have some method for exploring and knowing what human experience is (Varela *et al.*, 1993). He called this approach neuro-phenomenology. Varela proffered that this approach could offer a solution to the hard problem of the consciousness and worked out this method in detail in his book 'the View from Within'. Drawing on a wide range of approaches from phenomenology to meditation, 'the View from Within' examines the possibility of a disciplined approach to the study of subjective states. In 2002 Varela and his colleagues wrote: 'On becoming Aware: the Pragmatics of Experiencing' (Depraz, Varela & Vermersh, 2002), in which they showed the scientific use of this approach. These volumes attempt to provide the basis for a science of consciousness which includes first-person, subjective experience as an explicit and active component (Varela *et al.*, 1999).

In first-person methodologies, one is taking the subjective experiences of people into account (Varela, 2003). The aim of Varela and colleagues (1999) is to provide a clear procedure for accessing the phenomenal domain and to provide a clear means for validation within a community of observers (Varela *et al.*, 1999). Varela, Thompson and Rosch (1993) posed the question whether the mind, often characterized by flightiness, and non-presence can be worked with. According to Varela (2003), training is necessary in order to make trustworthy first-person observations. People vary in their abilities as observers and reporters of their own mental lives, and these abilities can be enhanced through mental training of the attention and meta-cognition. Everyone knows that one has to exercise in order to become a great athlete or musician, but this is also the case to observe one's mental experience (Varela, 2003).

4.3 The complementary role of Shamatha in the study of the mind

According to Varela and Shear (1999), the Buddhist traditions have accumulated a vast amount of expertise in training the mind and cultivating its ability for reflection and introspection, over centuries. They have expressed some of their observations in terms that are not too far removed from introspective or phenomenological psychology. According to them, it would be a great mistake of western chauvinism to deny it (Varela *et al.*, 1999). They argue that Buddhist training in attention through meditation is offering a method which could help people to do first-person observations and which could be of help in the investigation of consciousness (Varela, *et al.*, 1993). Meditation has been presented as an essential first-person modality for investigating consciousness by a number of authors (Varela *et al*, 1999; Pickering, 1999; Flanagan, 2006; Sarath, 2006; Louchakova, 2005; Shapiro, 1980; Thompson, 2005; Shear & Jevning, 1999; Swartz, 1999). Also according to Wallace, science has made very little progress in refining introspective abilities, whereas Buddhism has developed such techniques for over two millennia.

Introspection as a school of psychology failed definitively to provide a basis for experimental psychology (Varela *et al.*, 1993). There was no agreement at all among different laboratories of introspection on what results were yielded (Varela *et al.*, 1993). Each laboratory began with a theory that experience was decomposable

into certain kinds of elements and subjects were trained to decompose their experience in that fashion (sic!) (Varela *et al.*, 1993). A Buddhist practitioner would say that introspectionists weren't aware of their mind at all, they were just thinking about their thoughts (Varela *et al.*, 1993). It is precisely to *cut through the attitude of introspection* that mindfulness/awareness meditation exists (Varela *et al.*, 1993)!

Husserl's phenomenological reduction, in contrast to the method of introspectionists, is a method in which a person is supposed to look at things the way they appear to one's experience, without taking any *a priori* opinions of things into account (Varela, 2003). You bracket your own hypotheses for them not to influence the analysis. However the phenomenological approach doesn't offer a detailed methodology in order to do such observations.

The contemplative traditions, worked out a detailed methodology, containing precise instructions which make possible a fundamental and reliable observation of the mind in a first-person methodology (de Wit, 2003). This mental faculty of perception, through which we become aware of certain patterns in our mind-stream can, according to Buddhist statements be cultivated through mindfulness and awareness training in shamatha meditation (de Wit, 2003). Shamatha would be the telescope of the mind (Wallace, 2006). Wallace compares this with an instrument for observation, just like Galileo's use of the telescope. This is considered an instrument of the mind, we, in the West have never developed (Wallace, 2006e).

Shamatha meditation is exactly about learning how to concentrate and how to hold the mind on a single object. The purpose of calming the mind in shamatha is to render the mind able to be present with itself long enough to gain insight into its own nature and functioning (Varela *et al.*, 1993). Through shamatha training, one cultivates a mind that is able to observe mental phenomena in a different way than the untrained mind, that is easily destabilized by upcoming thoughts or other mental phenomena. In part III we have described in detail how stability and vividness of the mind is cultivated during shamatha training. Bare attention[25] is the clear and single-minded awareness of what actually happens to us and in us, at the successive moments of perception (Swartz, 1999). It is called bare, because *it attends just to the bare facts of a perception* as presented either through the five physical senses or through the mind, *without* reacting to them or *imputing them with conceptual layers* (Jyanaponika Thera, 1962).

Once the Shamatha mind is cultivated well enough, we can use this mind as an instrument of investigation. So during insight meditation, the mind is able to observe mental phenomena (using the perceptual abilities trained during shamatha

[25] This mode of awareness as a result of traditional shamatha training or Mahamoudra training, is called 'mindfulness' in academic psychology and the vipassana traditions of Buddhism.

meditation), without arousing further thought-trains induced by upcoming mental phenomena. Insight meditation is a systematic inquiry of the mind (de Wit, 1998). Shamatha should thus be considered as a *tool* for the investigation of consciousness (Wallace, 2002b; Shear *et al.*, 1999; Swartz, 1999). Meditating in this way generates a first-person kind of knowledge about the mental domain (de Wit, 2000). The emphasis here, doesn't lie on *re-presentations*, but on the contrary, on *knowledge by presence* (Louchakova, 2005). The experiential knowledge gained from practicing meditation can help us develop more sophisticated and sensitive research hypotheses for scientific study (Shapiro, 1980).

Scientists do remain critical about these Buddhist approaches. It is not because they claim to be able to do such an unusual research into consciousness, that this is also plausible. Therefore, they advise real scientific research, following normal scientific procedures and protocols in order to study this contemplative methodology for investigating consciousness (Shear *et al.*, 1999). Also according to Wallace (2006d) it is an empirical question, whether Buddhists are right or not about their claims on the effects of shamatha meditation. It is not something which can be answered by talking about it, we need to put this to the test in a rigorous scientific way. Fortunately a growing body of meditation-related research relevant to this experience in question has been accumulated over the past twenty-five years, which is in accordance with the Buddhist claims, but more rigorous scientific research is needed. This gave way to a new experimental set-up, the shamatha project, which we will shortly discuss below.

Mutual circulation

An argument which is often used against the proposal of Buddhist and other first-person methodologies is that the bedrock of scientific methodology is objective corroboration. Thus studying consciousness scientifically requires that we study it objectively, through examination of its publicly observable underpinnings (Shear *et al.*, 1999). In answer to this, Varela proposed to accompany these first-person observations with second- and third-person observations (Varela, 2003). What seems critical at this point, is a complementary science, which combines the experience of the practitioner with the experimental rigor of the researcher (Shapiro, 1980). Shapiro warns us for the mistake of having scientific study, without experiential knowledge, or the mistake of having experiential practices without scientific knowledge. Multiple methodologies are therefore considered the key: a combination of the first and third- person observations (Wallace, 2006e). The first-person methodologies of Buddhism should be cross-referenced with third-person methodologies of psychology or neuroscience. In this way one is using methodologies from different traditions, in the study of the common areas of those traditions.

This use of multiple methodologies has been termed 'mutual circulation' by Varela. For example an EEG is a third-person observation. If the subject under investigation says he experiences astonishment during the EEG measurement, this expression of the subject is a first-person observation (Varela, 2003). By combining these two methods, we are able to gain a much better insight into both the experiential and the biological basis of mental phenomena (Varela, 2003). First-person methods could help subjects gain access to aspects of their experience that would otherwise remain unnoticed, such as transient affective states or the quality of attention (Thompson,

2005). The refined first-person reports subjects thereby produce can help experimenters understand physiological processes that would otherwise remain opaque (Thompson, 2005).

Today, scientific study also uses subjective information in order to find out what relevant phenomena of consciousness correspond to the externally observable phenomena. However, the subjective side, typically used in science, is an everyday kind of introspection. Where in contrast to these rather unsophisticated subjective modes of inquiry, neuroscience, does employ sophisticated scientific methodologies (Shear *et al.*, 1999). Neuroscientific instruments such as fMRI and EEG are like microscopes of the mind, which enable scientists to observe the brain during different mental states. These methods, however often only deliver raw or vague data, because, the subjects of the experiments are often subject to swiftly changing mental states (Goleman, 2003). The data of these experiments are polluted with inconsistencies, because the ability of the subjects to perform a task varies enormously (Goleman, 2003). If subjects would be experienced observers, who can accurately report on their mental state and who can accurately perform a given task measurements, using highly advanced third-person methodologies, scientists would be able to identify certain mental states with their correlating brain movements, with a lot more precision (Goleman, 2003).

The research of Lutz on perception also shows that it is interesting to work with highly trained practitioners (Goleman, 2003). In normal circumstances, the subject recognizes the pictures, in the midst of an accidental network of mental states (Goleman, 2003). Öser, however, can keep his mind in a stable condition until the point of perception, which enables the research to clearly distinguish between the brain-state of perception, or the brain states of accidental mental states (Goleman, 2003). This should enable scientists to pinpoint the neural correlates of conscious experience with ever-increasing accuracy (Varela & Shear, 1999). According to Varela, researchers would be able to measure the moment of recognition with an until then unknown precision (Goleman, 2003).

According to Davidson such subjects could be used as scientific partners, in order to measure the correlation between people's experiences and the changes in their brains, because, with highly trained people, the connections will be more precise (in Varela, 2003). These people will represent a new class of subjects for brain research (Varela, 2003). Experienced meditators could form a fishing pond of subjects who will be able to cooperate on equal foot with scientists, within the scientific research (Varela, 2003). The Dalai Lama adds to this, that this was the reason why he had paid so much importance to the introduction of science in the education of monks (Varela, 2003). In this way, he hopes to give certain monks the best scientific education. The Dalai Lama hopes in the future to be able to deliver, trained Buddhists who also received extensive training in science (Varela, 2003). These monks will also be able to do scientific research in the future (Varela, 2003).

Varela, Thompson and Rosh (1993) introduced the term 'mutual circulation', in order to use both cognitive science, phenomenology and contemplative psychology as distinct, each with its own degree of autonomy, its own proper methods, motivations and concerns, but sharing common areas (Thompson, 2005). Contemplative practice could become a research tool both for developing better phenomenological descriptions of subjective experience and for investigating the brain. This

incorporation of contemplative practice into neuroscientific research constitutes an experiential neuroscience or neurophenomenology.

The Shamatha project

To conclude we will give a short introduction to another experiment which has now started. This experiment is special, because both Buddhists and scientists participate and both Buddhist and scientific measurements are taken and matched together. The Shamatha project[26] consists of a scientific set-up, following objective and subjective modes of investigation. The project brings together leading authorities in social and cognitive psychology, cognitive neuroscience, neuro-imaging and Buddhist meditative practices. This makes the project a scientific one, in which, Buddhists also participate as legitimate partners. Also Buddhist theories are taken fully into account. In this project, which will last a year, trainees will be fully trained in Shamatha meditation, which is supposed to render the mind useful for Buddhist inquiry in the form of penetrating insight into the mind. The subjects in this study will become expert witnesses of their own mental states. Subjects of this program can be called upon by psychology and neuroscience laboratories to collaborate in unprecedented research into a wide range of mental processes.

The Buddhist statement that it is possible to enhance one's capacity to concentrate through training is tested in a scientific way in this project. The cultivation of meditative quiescence through shamatha is a hypothesis that can be tested (Wallace, 2006c). The achievement of meditative quiescence involves a state of sustained, voluntary attention, characterized by stability and vividness and free of subtle excitation and laxity. These are all terms and concepts that are carefully described in Buddhist literature and can be operationalized in order to be tested in a scientific way. There are good scientific criteria to test the quality of someone's ability to concentrate. There is nothing mystical or mysterious about it. By this, they also want to investigate whether the Buddhist first-person method could actually bring something extra as a research tool in current scientific research.

The set-up consists of a longitudinal study of how Shamatha meditation affects human perception, cognition and emotion. The study will focus on trait (i.e. long-lasting) changes in mental abilities rather than state changes. There are two groups of 32 subjects: one group is going to meditate for one year, 8 to 10 hours a day, while the other group is a control group. There are two major questions: how plastic

[26] More information on the shamatha project can be found on the net at:

www.sbinsitute.com/research_shamatha.html

or subject to training are the cognitive and socio-emotional skills we asses behaviourally and what measurable brain changes underlie the behavioural changes?

The study wants to allow researchers to track changes in the mind and brain associated with meditation training. Assessment of both cognitive and socio-emotional variables at several points in time across the one-year study will be taken: sustained and selective attention, sensory discrimination, mental efficiency, attentional stability and vividness, and the ability to allocate attention, even when distracters are introduced. To do this, behavioural tasks will be used, such as: accurate task performance and fast reaction times (measures of cognitive functioning) as well as brain imaging procedures: EEG, fMRI. Also measurements of mood (PANAS-scale), emotion-regulation, compassion and empathy, personality changes, personality traits related to mental health (attachment security, openness to experience, neuroticism, or negative affectivity), ability to evoke emotional memories and set them aside when instructed to, will be taken. The trainees' subjective experiences will be taken into account by asking them to keep daily journals. Also interviews with psychologists, psychiatrists and well-experienced Buddhist practitioners (who will diagnose what stage of shamatha the trainee has reached) will be taken (Wallace, 2006d).

Part V: BUDDHISM AND SCIENCE: OBJECT OF (COMPARATIVE CULTURAL / RELIGION) SCIENCE AND / OR PARTNER IN THE (SCIENTIFIC) INVESTIGATION AND DEBATE ABOUT THE MIND?

In part IV we showed how the position of Buddhist knowledge and practices was very different in psychology, experimental psychology or neuroscience. It is recognized that Buddhism contains interesting elements from which Western science can learn, whether it is meditation as an element in psychotherapy or as a research method, or Buddhist psychology as knowledge. In part V we will give an overview of the meta-discussions this raises and the arguments used against the participation of Buddhist knowledge or methodologies in the scientific debate. As a solution for the exclusion of Buddhism from the scientific debate, some authors, mainly in the 19th century have termed Buddhism to be science, or even "the religion of science". Either Buddhism is scientific, or has scientific components, or either it is subjective, irrational and therefore has no legitimacy of speaking. Even if some aspects of Buddhism (such as the mindfulness techniques) may have proved to have beneficial aspects, according to some psychologists, it is still only science, which has to do all the research whereas Buddhism can stand aside and look at it, but cannot be a legitimate partner in the debate. This is the danger of calling Buddhism a 'religion', since, the term 'religion', is highly loaded with these underlying significations. Buddhism is classified and excluded from the scientific debate, which has to stay 'purely objective'. One example of this attitude of scientists, was the petition against the Dalai Lama's lecture at the yearly congress of neuroscience in 2005.

According to Latour the clean image of 'objective' science, having immediate access to 'nature', as opposed to other kinds of knowledge (such as religion), which are trapped in the prison of language and subjectivity; is a construction of science philosophers and doesn't correspond to the reality of science in action. With Latour we will show a more complete image of science in action. With Latour we are able to reframe the philosophical discussions on science, and stuff them with empirical evidence, throwing a new light on the discussion, finally overcoming the subjective-objective dilemma and thereby repositioning Buddhism in the scientific debate. Latour doesn't want to devalue science as merely subjective, or intersubjective. According to Latour science does differ significantly from other kinds of knowledge and this is what makes science valuable. But the image we are showed by Latour's empirical research is a little more nuanced than the clean image presented to us by the philosophical realists. Latour shows us the processes by which scientists do come up with 'facts', rather than 'artefacts'.

But it is not because science significantly differs from other kinds of knowledge (such as Buddhism), that these should not have the right to speak in the scientific debate. Latour argues against the *a priori* exclusion of certain statements, such as Buddhist statements from the scientific debate. Because according to him, every statement is an 'artefact' and subjective as long as science-in-the-making has not produced any 'facts', or has not turned into science-made. Latour argues that the statements of science or other kinds of knowledge such as Buddhism can *a posteriori* be turned into both 'facts' or 'artefacts'. We cannot dismiss hypotheses as 'artefacts' *a priori*,

because they are Buddhist, but we can dismiss or confirm them *a posteriori*, after extensive dialogue, research and debate.

In chapter 3 we will go deeper into the difference between Buddhist empirical inquiry and scientific methodologies. In this we will continue to build on our conceptualisation of Buddhist meditation and the development of a fine-tuned perceptual mental sense, as outlined in part III (chapter 2 and 3). The knowledge generated from the Buddhist investigation in the mind is a different kind of knowledge as the one generated by science. Buddhist knowledge is perceptual, experiential in nature and has a transformative effect on the knower. While science is characterized by mediated, indirect referential pathways, which load reality into the scientific text, Buddhist knowledge is gained in an immediate, direct way. We will show how both methods are objective, empirical, but nonetheless fundamentally different, and therefore even valuable in a complementary cooperation. We will plea for a 'mutual circulation' between Buddhist and scientific knowledge and methods, characterized by dialogue, rigorous research and debate to put Buddhist and scientific statements to the test and reject them as either 'artefacts' or accept them as 'facts'. In this radical symmetrical approach we cannot *a priori* refuse to investigate a statement, because it originated in Buddhist psychology and would therefore not be scientific.

1 Scientists wrestling with the position of Buddhist knowledge and methods within the scientific discourse

The rediscovery of Asian philosophy, particularly of the Buddhist tradition, is often considered as a second Renaissance in the cultural history of the West, particularly in cognitive sciences (Pickering, 1992). Buddhism was a great source of inspiration from which cognitive psychology integrated some techniques and practices in certain forms of psychotherapies. Evidence-based outcome studies of these, show many positive effects of mindfulness-based practices. The methods of teaching these skills in a secularised form is a positive evolution, but the teaching skills, by which this skill was passed on over the generations in Buddhism, might be altered in this translation. It is not enough to just put the instructions in a protocol. In part III we showed the importance of the Buddhist tradition as learning environment and it are these aspects of 'guided rediscovery' which might get lost. Little interest is taken by these scientists in Buddhist psychology. Even if some admit a comparison between Buddhist psychological theories and western psychological theories could be interesting, they feel the need to stress the scientific status of psychology and its hegemony over Buddhist forms of knowledge. Some psychologists have expressed their concern for this and stressed the importance of an ongoing dialogue with the roots of mindfulness practices in order to prevent an unnecessary reinvention of the wheel. Some of the well-respected authors in academic psychology recently started to participate in the Mind and Life dialogues.

Neuroscience has historically showed a lot more interest in the dialogue with Buddhism and from these Mind and Life dialogues a lot of scientific research originated, thereby giving direction to the mainstream neuroscientific debate and investigation in the mind. The Dalai Lama was invited on the annual congress of neuroscience in 2005. In his lecture he plead for breaking through the intellectual isolation of Buddhism. According to him, empirical facts can be a common ground for collaborative research. Most neuroscientists responded to his lecture with approval, however 544 scientists signed a petition against the speech of the Dalai Lama. One of the reasons for this, was that they didn't want to mix 'religion' with 'science' out of concern for the credibility of science. One of the concerns in this is biasing the search for the truth by unquestioned preconceptions. In part I however, we showed how meditation precisely doesn't have anything to do with preconceptions or 'ideas in the head'. Because meditation as a research method differs from science, it is automatically put in the category of 'religion'. In part I we also showed how the very definition of 'religion' had to be adapted to be able to fit Buddhism into this category, consequently however, also scientific theories could now be classified under this definition. In part V we will show how meditation indeed is significantly different from scientific methodologies and how preconceptions are excluded from this inquiry into the mind, but nevertheless could be an interesting complementary tool for investigation in the scientific study of the mind.

1.1 Psychology in need of re-affirming its scientific status?

Buddhism was a great resource of inspiration from which cognitive psychology integrated some techniques and practices in certain forms of psychotherapy, like the mindfulness-based approaches. The current mindfulness literature suggests that mindfulness practice may be beneficial to many people in Western society who might be unwilling to adopt Buddhist traditions or vocabulary (Bear, 2003). Thus Western

researchers and clinicians who have introduced mindfulness practice into mental health treatment programs usually teach these skills independently of the 'religious' and 'cultural' traditions of their origin (Bear, 2003).

Dimidjian and Linehan (2003) point out that the relationship with the spiritual teacher in learning mindfulness is considered extremely important in the training of this skill, while these 'therapies' are currently likely to be provided by therapists with minimal personal background in mindfulness and minimal relationships with spiritual mindfulness teachers or both. In part III we have stressed the importance of the learning environment and the relationship with a spiritual guide to pass on this skill to the next generation in a learning process we termed 'guided rediscovery'. The secularization of the therapy is not considered a problem, but the methods of teaching the skills of mindfulness, as they have been passed on for generations, might be altered because of the way they are adopted and taught by therapists. It is not just enough to put instructions into a protocol, but the guidance of a teacher, who has practiced these techniques extensively and knows them from his own experience, cannot be underestimated. It is there that this knowledge comes to life. To learn a protocol from a book or from a course is not enough. The teacher should practice himself and through his personal practice should have gained his knowledge about mindfulness. We should look at the ways these skills were passed on by the Buddhist tradition. We should study the specificity of these learning mechanisms in order to secularize these mechanisms in a more adequate way. In part III we conceptualised this learning process as a very specific kind of learning process, namely 'guided rediscovery'. The learning environment for this learning process is crucial. We should not just dismiss Buddhism as a 'religion' and adapt the techniques to our ways of teaching things. Teaching and learning processes in Buddhism are particularly different from our Western teaching and learning processes and we should have eye for that. Therefore we should not only rely on the secularized protocol for learning and teaching mindfulness techniques within cognitive psychology. We should turn back to the roots of these techniques and study these more carefully.

John Kabat-Zinn does refer to the roots of MBSR (Mindfulness-Based Stress Reduction) in Buddhism. However we don't find a lot of references to Buddhism in mainstream academic literature of the mindfulness-based approaches in cognitive psychology. Psychologists are trying to find explanations for the found effects solely within Western psychological theories. This stands in stark contrast with the discoveries done in neuroscience, in which Buddhist psychology is taken into account. The Dalai Lama is even explicitly thanked in the scientific articles, for his suggestions, advice and active help in the research (Lutz *et al.*, 2004). Some psychologists within the Acceptance approaches of psychology (Cf. Hayes, 2002), have found that their theories and explanations for the effectiveness of their therapies, were very similar to certain theories within Buddhist psychology. Even if they have mentioned that a comparison could be interesting, they find it to be the exclusive territory of science to investigate this further, rather than opening the dialogue with Buddhism or looking for explanations of the effects of meditation within Buddhist literature. Hayes (2002) stated that the Buddhist concepts and practices that showed pragmatically useful, should be studied by science in order to provide a scientifically valid account of why and when these concepts and practices are useful. Hayes (2002), proposed to find ways to fit the practices and knowledge from spiritual traditions into the theoretical matrix of scientific psychology. He

emphasized the importance of science and the validity of scientific knowledge over Buddhist knowledge. So actually Hayes' proposition to take a look at Buddhist theories is already very progressive, compared to the attitude of other authors. Hayes (2002) has remarked that a comparison between the acceptance theory and some Buddhist psychological theories could be important, but added to this that science should have the final word.

In all the literature within the mindfulness movement we found only a few articles (Kumar, 2002) which explicitly refer to Buddhism. Dimidjian and Linehan (2003) on the other hand, have stressed the importance of an ongoing dialogue with spiritual (non-secular) teachers of mindfulness in order to prevent an unnecessary reinvention of the wheel. Dimidjian and Linehan (2003) expressed their concern about withholding important knowledge within Buddhist psychology, because they are labelled religious or spiritual. They stress the importance of explicit and public dialogues with spiritual teachers. Linehan has engaged in ongoing discussions with her Zen teachers about the mindfulness skills taught in Dialectical Behaviour Therapy. Also Kabat-Zinn (2000) keeps the dialogue open about MBSR with for example the Dalai Lama in the Mind and Life conferences. Even if we don't find a lot of scientific articles within academic psychology, that consider Buddhism as an equal partner in the dialogue, debate and study of the mind, nonetheless some respected scientists within the mindfulness-approach, such as Shapiro, Segal, Williams, Teasdale and others, have participated in the Mind and Life dialogues. According to Kabat-Zinn (2003), we are challenged to find a fit that honours the integrity of what may be different but complementary epistemologies.

In academic psychology, mindfulness has elicited great interest from well-respected scientists, however, the research stays limited to mindfulness, while in neuroscience, not only mindfulness, but different kinds of secularised, as well as Buddhist meditations are subjected to scientific research. Buddhists are also actively cooperating in the set-up and the interpretation of the results. Buddhism is not only the object of scientific research, but is also considered an equal partner in the research of the mind. Buddhist theories are used as inspiration, in order to derive hypotheses which are later tested in the labs. Buddhist methods of inquiry into the mind are also considered exceptional, in the sense that they differ considerably from the scientific method and could actually be an important complementary methodology within scientific research. In this way, the first steps for incorporating Buddhist techniques within scientific methodology have already been made. Neuroscientists also stress the importance of a dialogue with Buddhist practitioners and how neuroscience can learn from the Buddhist tradition in order to study the mind.

Cognitive psychologists, on the other hand, seem to be very careful about referring to Buddhism, and if referring to Buddhism, simultaneously feeling the need to stress its own scientific status and the importance of systematic research. It is as if psychology is still fighting to remain its scientific status, while neuroscience dares to take more risks. The results neuroscientists have come up with, are pointing to proof, which cannot be questioned in the sense that they cannot be simply rejected without counter-proof. Black on white they show how meditation elicits certain states in the brain, which can be traced and replicated by any sceptical researcher. Such remarks about the scientificity of their research are also found within neuroscience. But when neuroscientific articles are published, in which Buddhists have also

cooperated, if the investigation has been conducted in a rigorous scientific way, than, the facts articulated through them cannot be easily rejected, unless one is replicating the experiment and risking to confirm the results. This doesn't mean that some questions do have been raised within the neuroscientific community.

1.2 'Scientific' (?) protests against Dalai Lama's lecture on the annual congress of neuroscience

A lot of the psychologists, psychiatrists and neuroscientists who are open to the dialogue with Buddhism, have participated actively in the Mind and Life conferences. Some of their work got inspired by these dialogues with the Dalai Lama. As a consequence of this, the Dalai Lama was invited to give a lecture at the annual congress of the Society for Neuroscience in Washington D.C. on November 12, 2005. This is the world's largest organization of scientists and physicians dedicated to understanding the brain and the nervous system.

According to studies reported at the annual meeting of the society for neuroscience, the practice of meditation may change the brain in a way that helps boost attention (Fackelmann, 2005). Sara Lazar of Harvard Medical School studied Westerners who meditated for about 20 minutes every day, but didn't necessarily believe in the tenets of Buddhism. Lazar and colleagues used MRI to look at brain parts involved in memory and attention. She found that meditators had increased thickness in those regions (Fackelmann, 2005). Another study suggests that meditation boosts performance on tests that measure attention. Bruce O'Hara at the University of Kentucky and colleagues tested the influence of meditation on the ability to attend to a boring task during mid-afternoon, a time when attention often flags (Fackelmann, 2005). Even if meditators had been deprived from sleep, their performance was improved by the meditation (Fackelmann, 2005). Also the study of Richard Davidson of mostly Buddhist monks, at the University of Wisconsin found that meditation produced a jump in brain waves associated with vigilance. His study also found that meditation activated brain regions involved in attention (Fackelmann, 2005). These new findings offer some support to the statement of Buddhist monks, that meditation can increase attention and concentration (Fackelmann, 2005).

The Dalai Lama's lecture at this congress was the first of a new series of lectures entitled "Dialogues between Neuroscience and society". An estimated 14.000 people attended his lecture with most of them watching from overflow rooms where the talk was broadcast on large screens. The Dalai Lama spoke to neuroscientists, urging them to continue their crucial work on meditation (Fackelmann, 2005). Such studies may help identify practices that will help people deal with negative emotions, he said. He plead for breaking through the intellectual isolation of Buddhism. He tried to show, that despite the different historical, intellectual and cultural roots of Buddhism and science, they do share some significant commonalities and that their cooperation could lead to a better understanding of the complex world of inner subjective experience, namely the mind. In his lecture, he stressed that we should try to find reality with an open mind, referring also to science. Without investigation, we can't see reality, he said.

He stressed the importance of differentiating between theoretical suppositions and empirical observations based on experiments. According to the Dalai Lama, empirical facts could constitute a common ground for both traditions, despite the fact that

they might differ significantly in theoretical assumptions, and without the need for reducing the framework of one discipline into that of the other. He stressed that empirical facts, must remain facts, no matter how one may choose to describe them.

For the contents of the dialogue between Buddhism and science, the Dalai Lama pointed out that Buddhism has developed techniques for the refinement of the attention, as well as for the regulation and transformation of emotions, while neuroscience has focused on the brain mechanisms that are associated with attention and emotion. A cooperation between the two traditions, could study the impact of such mental activity on the brain circuits. This intercultural dialogue could help raise critical questions in key areas. For example "Do individuals have a fixed capacity to regulate their emotions and attention?" or, as Buddhist tradition argues, the capacity for regulating these processes are greatly amenable to change.

However the Dalai Lama also warned for problems when two radically different investigative traditions like Buddhism and neuroscience are brought together in an interdisciplinary dialogue. One example he gave was when we speak about the "science of meditation", we need to be sensitive to exactly what is meant by such a statement. This is what we will also further discuss in the next chapter. Next to that he stressed the importance of being aware, what kind of meditation one is investigating in the experiments, because there are different kinds of meditations. In this way, the sophistication of the scientific research can match the complexity of meditative practices. He said that if the investigation shows, as Buddhist tradition implies, that mental practice can effect observable synaptic and neural changes in the brain, this could have far-reaching implications. The repercussions of such research will not be confined to expanding our knowledge of the human mind, but, according to the Dalai Lama, more importantly, they could have great significance for our understanding of education and mental health.

The neuroscientists in the auditorium responded with approval. One of them remarked: it should not matter that the observations associated with meditation arise through introspection, as long as the observations can be used to generate objective testable hypotheses. The speech of the Dalai Lama received a standing ovation, but the lecture of the Dalai Lama led to the withdrawal of six presentations (Kruglinski, 2006). 544 scientists signed a petition against the Dalai Lama's talk (Fackelmann, 2005). Many said they didn't want to mix religion with science (Fackelmann, 2005). Some of the scientists, who signed the petition, argued that they were concerned about the status of credibility of engaging too easy with religion. Another reason for the protests could be political, since many of those who signed the petition, were Chinese. In China, Tibetan monks were beaten for practicing meditation. But on the day of the speech of the Dalai Lama, the only visible protest came from a post doctorate Chinese student, who quietly sat holding a scrawled statement saying that the Dalai Lama was not qualified to speak at the meeting. Next year, architect Frank Gehry will give the 2006 dialogues lecture. His participation is not expected to draw such criticism.

We checked the Mind and Life Research Network on the internet (which had become a locus for this controversy pro or against Buddhism as a legitimate partner in the scientific debate) for the arguments that accompanied this controversy (Mind and Life controversy, 2005). One of the arguments used in this controversy is that this brings us back to the centuries-old confrontation between 'science' and 'religion'.

According to those scientists, science always had to fight the opposition with religion, because science should search for the truth *without preconceptions that could bias that search*. Others argued that people who say that Buddhist investigation of the mind would be polluted with preconceptions, don't know what the specific nature of Buddhist inquiry is exactly about. We briefly discussed this in chapter 4 of part IV and will discuss this extensively below, in the chapter on perceptual knowledge.

On the other hand the question was raised whether Buddhists should be banned from conducting scientific research, for the simple fact that they are Buddhist. To reject all religious people from the scientific debate is considered ideological intolerance by opponents: "Are their minds so contaminated with religious beliefs that they are unfit to conduct objective research?". Some scientists indeed argue that Buddhism should first set aside its ideas, which are incompatible with science, before they can enter the scientific dialogue. Reincarnation is given as an example in this context. If Buddhists' personal investment in the research is biasing their results, this is indeed bad science, and the best way to lift this suspicion is to have the research replicated by an independent laboratory. It is therefore interesting to subject Buddhist claims to the most rigorous scientific investigations. Simply dismissing Buddhist claims without falsification would be unscientific, one first has to replicate the Buddhist research and prove it wrong. However, opponents tend to put meditation as a means to replicate these results, on equal footing with "weeping icons and other paranormal phenomena", which are not scientific and therefore best left out of the discussion.

Because the Buddhist methods are not scientific, they are dismissed as 'religious', irrational, subjective, so untrue and consequently don't have the right to speak in the scientific debate. They are not taken seriously in any way. They are only part of a 'belief system'. In part I we showed how Buddhist meditational practices are exactly the opposite of a 'belief system'. However if one tries to bring in that meditation as a method of training the attention and as a method for observing mental phenomena, exactly does not depend on the individuals *preconceptions* or religious *beliefs*, because this is exactly a very important characteristic of meditation, scientists are already no more willing to listen. They have dismissed it as unworthy to look at. The fact that Buddhists have been studying the mind for so many centuries by meditation, even before the scientific method existed, is then, no more an argument that can be used in the debate.

A lot of scientists have attempted to withdraw Buddhism from this category 'religion' as an answer to the argument that 'religion' and 'science' shouldn't be mixed. Some of them have done this by arguing that the Buddhist methods are so rigorous and systematic, that they are like science itself. Some have argued that science itself is not really based on objective observations, but on intersubjective confirmation, which consequently puts scientific methods on equal footing with the intersubjective confirmation within Buddhist traditions (through meditational experience). We will discuss these different strategies and the mistakes in them, below.

Others argued that we are superimposing preconceived western categories (religion, but also science) on Buddhism, instead of approaching it with an open mind. As we saw in part III, Buddhism does contain religious aspects, even if Buddhism confronted us with huge problems in the comparative study of religion. To classify Buddhism as a 'religion', we saw that even the very definition of religion itself had to

be adapted. While using a new conceptual framework in order to study Buddhism, however, we saw other than religious aspects coming to the surface, which made us think of another western category: '(cognitive) science'. However is it a solution to categorize Buddhism as a 'science' in order to give it a legitimate voice in the scientific debate and to avoid problems like this petition against the Dalai Lama's talk at the conference? One excludes the Dalai Lama from the scientific debate *a priori*, because he is associated with 'religion', rather than a scientist or someone who has experience in investigating the mind. Can we refuse a debate, even before we have heard the arguments of the person, or of a certain tradition, because we categorize it as a 'religion'? Below we will discuss whether Buddhism and science have things in common or in what ways they differ from each other, as well as whether Buddhism can have a voice in the scientific debate.

2 Meta-discussions: 'Subjective Voices' (Buddhism) versus 'Objective Knowledge' (Science)?

In this chapter we will be guided by Latour's analysis in our diagnosis of the roots of this problem that keeps Buddhism out of the scientific debate. The voice of the scientific realists states that scientific knowledge is knowledge about the world and can be explained by 'nature'. This voice installs an asymmetrical view on other forms of knowledge. Buddhist knowledge, in this line of reasoning, can be explained by 'culture', as opposed to nature and is kept out of the debate, since their knowledge is believed to originate from *preconceptions* (i.e. '*beliefs*, 'culture') and have nothing to do with truth and reality as scientific knowledge does. That is why Buddhist philosophy and psychology are still part of the comparative studies of religion, rather than a branch in philosophy or psychology, which is considered the sole birthright of Europe. In this way, one can remain blind to any discoveries outside one's own cultural context. In part I we showed how Buddhism cannot be categorized as a '*belief system'* or a worldview, having a bunch of doctrines, representations, ideas, conceptions or preconceptions. In part III we conceptualised shamatha meditation as a way of observing the mind beyond conceptual frameworks. We should be aware of the limits of science (cf. explanatory gap, part IV, chapter 4) and dare to ask whether other civilisations might have come up with something we, in the West haven't come up with, for example in the study of consciousness. Therefore we should give up the asymmetrical point of view. The Mind and Life dialogues are an example of breaking away from this asymmetry.

We will see how this asymmetric categorization is too simplistic and doesn't give an accurate view on different kinds of knowledge. This opposition (objective versus subjective, science versus other kinds of knowledge) doesn't correspond to the reality of Buddhism and neither does it show us the reality of science in action. We will turn to Bruno Latour's empirical inquiry into the nature of science in action and in this way uncover the real differences between scientific and other kinds of knowledge. In part V we want to show how Buddhism fundamentally differs from science without having to classify one simply as subjective and the other simply as objective. We cannot simply accuse Buddhism of being subjective in the sense that the knowledge generated from its methods is merely a crystallization of its biased preconceptions.

In his ethnographic study of science, Latour found hat science has two faces which say and do contradictory things. The 'science-made voice' of the science philosophers is the face which presents us a clean image of the 'true nature of science', but leaves the aspects of 'science-in-the-making' (the second face of science) out of the picture. All the construction processes, debates, reinforcements and instruments involved in 'science-in-the-making' disappear from the picture as soon as a 'fact' has been solidified. The 'science-made-voice' explains the origin of the fact to be solely 'nature' and moves the messy controversies and debates of science-in-the-making out of the picture. As long as the debate hasn't consolidated a 'statement' into a 'fact', the 'statement' is situated in a twilight zone between 'artefact' and 'fact', subjectivity and objectivity. That is why not any 'statement' (neither a statement derived from Buddhist psychological theories) can be excluded *a priori* from the debate. Only *a posteriori*, after the scientific debate has ended, we can call a statement an 'objective fact' or a 'subjective artefact', whether that statement originated from Buddhism or scientific materialism.

Since the accusation of 'non-scientific' or 'religious' implies that one's knowledge is no longer considered to be legitimate knowledge, but is rather classified and put aside as subjective, many authors have emphasised the scientific aspects in Buddhism. Others have stressed that science, is subjective, rather than objective, and thus is only one more way of knowing the world, just like the way other cultures know the world. The methodology of science cannot reach beyond the biases of preconceptions, they are as much theory-dependent as the symbolical frameworks of other cultures. Another argument is that it is possible to step out of our prisons of language and find something about the truth, through intersubjectivity. In this line of reasoning the objective yardstick is the verification of the results found by one expert, by a select group of experts. Whether these experts are scientists or Buddhist contemplatives, both reach the same level of objectivity or intersubjectivity. Science and Buddhism receive the same status of credibility and are now able to communicate as equal partners in a debate. We find this solution however problematic, since it hides, those aspects which make science *and* Buddhism so valuable and unique.

With Latour we will try to find another way to give Buddhism a legitimate voice in the scientific debate, respecting both valuable and fundamental, but very different characteristics of science and Buddhism. With Latour's conceptualisation we will be able to characterize science as a very unique way of investigating reality. In the next chapter (chapter 3) we will outline how the empirical investigation of Buddhism is very unique and different from the empirical investigation of science. In his empirical observation of scientists, Latour finds out that between reality or 'nature' and the scientific text which reports on these scientific observations, there is an 'intermediary pathway' by which reality is loaded into the text itself, through indirect and complex mediations. These pathways link 'nature' to words by hybrids between words and things. This 'circulating reference' is what makes the scientific text so unique next to other narratives and is why science is not trapped in its own conceptual frameworks. This stands in contrast with mental experiential observations which cannot be loaded into a scientific text with this method, but brain signatures correlated to certain meditational practices can be transported by 'intermediary pathways' into the scientific text.

Latour shows how 'facts' are constructed, which doesn't mean that true facts wouldn't be discovered. That is why we can't push Latour in the camp of the relativists or realists. According to him subject and object come into existence simultaneously when scientists make 'facts'. With the concept 'factish' Latour steps outside the Procrustean bed of the modernists: "Are scientific facts real (realists) or constructed (relativists)?". Both reality and scientists are involved in the construction of 'factsishes'. Latour argues against the *a priori* division of knowledge in subjective and objective. Both Western psychology and Buddhist psychological statements should be included in the scientific debate on the mind. It is only after extensive research, dialogue and debate that hypotheses can be confirmed or not, that 'statements' can be tuned into 'facts' or 'artefacts'.

As a result, Latour argues for a radical symmetrical approach in which he pleas for more research, debate and dialogue. No statements can *a priori* be excluded from the scientific debate because they don't resonate with the presumptions of the Western scientific paradigm, such as scientific materialism or cognitive psychology. Latour pleas for more controversies confronting good and bad constructions, putting

things to the test in order to consolidate ‘facts’ and refute ‘artefacts’, whether they originate from Buddhist or Western psychology doesn’t matter. Latour argues for a pluralism of ideas and multiple methodologies in these controversies. In this way, Buddhism can comfortably be totally different as a methodology or a psychology, from scientific methodologies or Western psychology, without therefore being excluded from the scientific site of debate and research.

2.1 Diagnosis: going back to the roots of the problem

2.1.1 Asymmetry: “Science peopled the world with irrational minds”

Realism is a philosophical view on science which states that science is the study of the world outside, and results in a true knowledge about the world. According to realism, science is objective, because ‘nature’ speaks to science. According to Latour (2002), it is this view on science that installs an asymmetrical view on other forms of knowledge, such as for example Buddhism, which are consequently banned to the domain of ‘culture’ as opposed to ‘nature’. Their knowledge about the world cannot be explained by ‘nature’, as is the case in scientific knowledge, but receives an external explanation: ‘culture’. They do have ‘sense’, but are therefore subjective. Western culture, however puts ‘nature’ central, which makes that ‘we’ have access to the true nature of phenomena and can thus come to know the truth. This while other cultures belong to the domain of the ‘word’, thus culture, which makes that they have only access to biased representations of ‘nature’, rather than ‘nature’ itself (Latour, 1995). This brings us to the following asymmetrical division: Nature versus Culture, objective versus subjective, rational versus irrational, knowledge (i.e. Western scientific knowledge) versus ‘beliefs’. Buddhism is automatically situated on the right side of the division, since it is only scientific knowledge which is considered to have the privilege to have access to true knowledge about reality, the right side of the division.

Once ‘nature’ enters the debate, others have only subjective and biased representations of it. If they persist in clinging to those representations they are considered simply irrational (Latour, 2002). In this way, science peopled the world with irrational minds, with ‘beliefs’ and cultures (Orye, 2005-2006). The history of discovery has been regarded commonly a western pursuit (Wallace, 2000). According to scientists, belief and convictions are subjective, which means that they tell us as much about those who believe them than about ‘nature’ (Latour, 1995). Science on the other hand, is objective, and tells us something about ‘nature’ itself. Latour (1999) states that terms like ‘subjective’ versus ‘objective’, irrational versus rational, are not so innocent, but are real accusations. These accusations are made within the networks that constitute science, about the world outside of these networks. As a consequence most people in the world, that don’t belong to these scientific networks are considered irrational. The relative smallness of those scientific networks, is hereby ignored and the biggest part of the world is kept outside of the scientific debate in this way.

We end up with two categories of knowledge, which are evaluated and explained in a different way (Orye, 2005-2006). At the left side of the division we have the ‘wrong’ visions (since they are not part of the category of science), they ask an external explanation. For example a sociobiologist will want to know why it took such

a long time before biologists accepted the theory of Darwin. A psychologist will wonder why so many people are still so ignorant to believe in parapsychology, while it has been proven for more then ten years that such things don't exist. In all these examples, scientists accept that all people should have gone in the single reasonable direction (outlined by science), but are unfortunately following wrong views (Latour, 1995: 233-235). The reasons why people don't see the truth of reality are, according to this asymmetrical view, external, like: *preconceptions*, differences in culture, sociological explanations or even psychological problems (Latour, 1995: 234).

Asymmetrical division:	
Culture	Nature
Subjective	Objective
Irrational	Rational
	Science
'Beliefs'	Knowledge
Representations	The world 'out there'
Symbolic[27]	Reality
- culture 1	
- culture 2	
- culture 3	
- Buddhism	

Knowledge at the left side of the division is not taking part in the scientific debate, but is studied *by* science as an object of the comparative studies of religion or culture. If the Karam, for example don't classify the kasuaris as a bird, which has no feathers, the anthropologist will look for an asymmetrical explanation to why the Karam are doing this (Latour, 1995). Their classificatory system will be termed

[27] We can recognize the underlying cognitive paradigm (as outlined in part II) in this view, which defines culture as something symbolic.

‘ethno-zoology’, while the scientific taxonomy will not be questioned and doesn’t need an external explanation (Latour, 1995). The question anthropologists ask is: “Your culture deviates from our norm, what is the reason to this?”.

Edward O. Wilson (1998) claimed that the religious narratives about the nature of the universe and humanity will be finally replaced by scientific theories. The voices of spokesmen of science leave no room for other ways of knowing, such as Buddhism (Hut, 2003). The study of the philosophy or psychology of non-Western countries, such as Buddhism, is often still classified under area studies, not on a par with real philosophy or psychology, which is considered to be the sole birthright of Europe (Hut, 1995). Buddhism is dominantly studied by the science of religion or the comparative cultural studies (Cabezon, 2003). This category of research is, opposed to other compartments of science such as physics, psychology, law, ... (Hut, 2003). Buddhism is confined to these areas of science in the current dominant model, rather than having a voice as colleagues in the psychological and neuroscientific studies (Cabezon, 2003). This classification, however, is highly problematic (Hut, 2003). In this way, one remains blind to any discoveries outside one’s own cultural context. The desirability of developing a more global and less Eurocentric world view is an idea that is gaining in popularity (Hut, 1995). The Mind and Life dialogues are an example of breaking away from this asymmetry.

Irrational, subjective, superstitious, ... these are the terms scientists use for people who believe in non-scientific things, or anything situated on the right side of the asymmetric division (Latour, 1995). Scientific knowledge on the other hand, doesn’t need any psychological, sociological, political, religious or other external explanations. Just referring to reality as an explanation for their theories is considered enough: it is ‘nature’ which is like that and that is what the scientific theories simply refer to. Science is the study outside of us, ‘we’ can get true knowledge about the world ‘out there’ (Orye, 2005-2006).

Modernists consider themselves freed from the chains that blind all other cultures, since they can, at will, jump out of subjective existence, into objective reality, while the other cultures, are considered blocked, limited or paralyzed (Latour, 1999). “You possess meaning, perhaps”, they were told, “but you no longer have reality, or else you have it merely in the symbolic, subjective, collective, ideological form of mere representations of a world that escapes you, although “we” are able to grasp it objectively” (Latour, 2002: 14-15). In part I, however, we showed how Buddhism cannot be defined as a symbolical system, in which doctrines, ‘beliefs’, representations or ‘ideas in the head’, conceptions or preconceptions are central. In part III we showed how shamatha meditation is a means to investigate the reality of the mind beyond all conceptual frameworks, inclusive Buddhist conceptual frameworks.

According to the asymmetrical division, conflicts between ideas, remain limited to the representations, ideas and images that diverse cultures could have about a singly ‘nature’, they all have their source in preconceptions, the subjectivity of the human mind (Latour, 2002: 6). Thus one could always move from passionate diversity (cultural knowledge) to a reassuring and rational agreed upon reality (scientific knowledge) (Latour, 2002: 7). We can recognize the cognitive paradigm and the Cartesian dualistic division between the world ‘out there’ and the symbolical

representation of the world in the mind, by cognitive schemes. We criticized this view in part II chapter 1.

This division has for a consequence, that 'the Other' is now positioned in a double-bind position (Orye, 2005-2006). In this asymmetrical view, if you don't belong to the one category (science), you are automatically classified in the opposite category. However, it is not because "we" claim to have access to 'nature', that the Other should be considered as merely 'culture' (Orye, 2005-2006). Also the Dalai Lama (2005) has remarked that, even if a lot of domains of life and knowledge fall beyond the reach of scientific methods, a lot of people believe, that the scientific worldview is supposed to be the base of all knowledge and will tell us everything we need to know. According to the Dalai Lama (2005: 12-13) the problem here, is *not* the empirical data, science offers us, but: the statement that we should base our worldview only on science. In part I we for example discussed how Wiebe argued that if the non-conceptuality Nagarjuna talks about, cannot be studied scientifically, it simply doesn't exist, while if it would exist, it could necessarily also be studied in a scientific way. We should ask ourselves the question whether there are aspects of reality that we may gain knowledge of, but in a form that cannot be translated into a scientific type of knowledge (Hut, 1995). Work at the frontiers of science, research at the cutting edge, struggles to extend knowledge beyond its current limits (Hut, 1995). The explanatory gap we discussed in part IV is important, because it shows, somehow the limits of science. Not everything about the mind, for example can be studied by the current scientific methods. Science should dare to recognize its own limits (Wallace, 2000). We need to dare ask the question whether other civilisations have come up with something we haven't come up with, for example in the study of consciousness (Wallace, 2006).

According to Latour, this asymmetrical view is *a priori* classifying types of knowledge. Latour argues that this opposition doesn't show the specificity of science rightly. According to Latour the asymmetrical view is a construction that is projected on reality. This science-made voice doesn't talk about the processes involved in science-in-the-making. According to Latour, that is the source of the problem. This is why Latour prefers an empirical study of science, rather than the philosophical discussions accompanying science. Latour preferred to take a look at science in action, rather than getting dragged away in endless philosophical discussions about the true nature of science. He made an ethnographic study of science and followed scientists in their scientific activities in the labs, in the fields (Orye, unpublished manuscript). He made an extensive study of certain scientific controversies in scientific articles and took a close look at what arguments were used and what they resulted in. By doing this, he breaks through the asymmetry. Up until now, only other cultures (the left side of the division) had been studied by anthropology. According to Latour (1999), the only way to understand the reality of the sciences, is to pay close attention to the details of scientific practice.

Latour first described scientific practice from up close, as anthropologists do when they go off to live among foreign tribes. It is only after this that Latour again asked the classic question the philosophy of science attempted to solve without the help of an empirical grounding: "How do we pack the world into words?" (Latour, 1999). In this movement, he wanted to avoid giving answers to these questions, before the empirical research was done (Latour, 1995). The difference between Latour's anthropology of the sciences and science philosophy, is that we are not taking part

in an abstract discussion, but are taking a look at reality as a basis for our questions (Orye, 2005-2006). Taking such anthropology seriously will reframe discussions on science radically, supplying these with a new vocabulary and with a much more positive and constructive tenor (Orye, unpublished manuscript). This will reframe our discussion whether Buddhism can have a legitimate voice in the scientific debate and research on the mind.

According to Latour (1995) this asymmetrical division is nothing more than an *a priori* construction, within the minds of scientists. As soon as this division disappears, other, smaller differences become visible (Latour, 1995). Latour (1999: 85) wants to get rid of the division altogether. Instead of taking this division as a starting point, Latour prefers to take a look at empirical evidence collected through his anthropological investigation of science and, in this way, see what the real differences are exactly about. This is also what we want to do in the next chapters, where we want to take a look at in what ways, science and Buddhism fundamentally differ, without having to classify one to be simply subjective, while the other one is simply considered objective. We showed in part I how difficult it was to classify Buddhism in the category of 'religion'. In part III we have come to the conclusion that there were many aspects in Buddhism which reminded us of scientific investigation and we have wondered whether science could be a category in which we could fit Buddhism. If we take a close look at Buddhism, we find out that Buddhism doesn't fit in any of these categories. We cannot accuse Buddhism of being subjective, in the sense, that the knowledge generated from its methods is merely a crystallization of its biased preconceptions. On the contrary, in chapter 2 and 3 of part III, we showed how in shamatha one learns to observe the mind beyond any conceptual frameworks that could influence the bare analysis of phenomena such as the mind. The opposition between 'science' and 'religion' can be set aside when Buddhism and scientific psychology are considered (Pickering, 1995). We will further explore this question in this part (V).

2.1.2 Another distinction: the 'science-made voice' versus 'science in the making'?

In his work: "Science in Action", Latour (1995) stuffs his view on asymmetry with his empirical research. By this, he comes to an entirely different result than that what the science philosophers claim about the nature of science.

Galileo states that if an ordinary person accidentally finds out the truth about something, he will be able to conquer the opinions of big amounts of scientists, because in science, one simply needs the truth or 'nature' by one's side. Latour (1995: 45) however finds out that a lot of rhetoric is used in scientific debates. Next to that, science is so costly and asks so much energy, that the ordinary man cannot win from the networks of scientists supporting a certain fact. In his work, Latour puts the *activities of science* in the spotlights: controversy, collecting allies and processes of construction. He (1995: 127) remarks that once a controversy has been won, all that hard labour involved in the controversy, disappears out of sight and a new ally, which was until then invisible, but behaves as if it had always been there, enters the debate: 'nature'. Thus, Latour doesn't agree with the science philosophers that 'nature' would be the only arbiter in a dispute. Scientists do claim this, but in the mean time they collect as many allies as possible (Latour, 1995).

According to Latour, scientists thus speak from two faces, comparable to the Janus-head. One face is the 'science-made voice', the other is the 'science-in-the-making voice'. According to the 'science-made voice' 'nature' is the one that ended a controversy and turned a statement into a fact, while according to 'science-in-the-making, a fact is the consequence of winning a controversy. According to Latour the 'science-made voice' speaks about those parts of science which have been solidified into facts, while the 'science-in-the-making voice' speaks about those statements in science which are still subjected to controversy. However, the 'science-made voice' makes the most noise and leaves those toilsome processes of science in the making out of the picture by not talking about them. For example the telescope which made the moon visible, as well as the heavy controversies, Galileo had to face in order to produce an image of the moon, disappeared, once the fact had been solidified (Latour, 1995). All these construction processes, instruments, etc. disappear in a black box once a statement has been turned into a fact. The price paid for the production of arguments, as well as the contest for proofs, are then being erased from the picture (Latour, 1995). This is how 'science-in-the-making turns into 'science-made'. Once the debate has been won by one camp, the extra reinforcement of 'nature' comes along as an explanation to why the debate has been won.

Latour diagnosed this science-made voice to be the cause of the asymmetrical division and connects this voice with the realists and science philosophers. However science is not only about science-made, the biggest part is about messy controversies and the collection of allies involved in science-in-the-making. The clean image presented about science by the science philosophers, doesn't fit with the reality of science in action. The result of science in action, namely the facts, are according to Latour (1995: 267) no regularities but rather exceptions.

This science-made voice then, becomes the standard for understanding all other realities, which creates the asymmetrical division between science and other forms of knowledge. These other opinions become 'mere opinion' and opposed to objective knowledge (Orye, unpublished manuscript). It is the 'science-made voice' which claims to be modern. This science-made discourse, when talking about non-scientific statements, *states that whatever science says is true*, because that is the way 'nature' is. This is an argument we often met in the meta-discussions on whether Buddhism can have a legitimate voice in the scientific debate. It is this discourse which generates two categories: 'science' and 'merely belief', the rest, outside of the scientific discourse. Only those statements belonging to the first category would thus contain the truth (Orye, 2005-2006). In the process, one forgets that science is an exceptional, costly and energy-asking business, that those are relatively small networks and that the consolidation of facts is rather an exceptional phenomenon after long debates and controversies. They simply state that they have the truth on their side, because they are scientific and have immediate access to 'nature'. While cultural knowledge, religions, or Buddhism, for example do not and its statements should not be taken into account as truth, but should be studied by the comparative religious or cultural sciences.

Latour's (1995) empirical study of science in action, however shows a less clean image about science. Latour found out that 'nature' as an argument only appears as an argument, once a controversy has been won *and cannot be used as an argument as long as the controversy has not produced any facts*, since nobody then yet knows

what the truth about 'nature' is. 'Nature' is not the most important explanation for a 'statement' to become a 'fact'. A lot of allies and reinforcements play an important role in order to isolate or negate a deviating opinion or to turn a 'statement' into a 'fact'. In his anatomic analysis of scientific literature, Latour (1995: 75) found that the scientific literature becomes more and more technical because of the introduction of more and more reinforcements. In the scientific text, one moves from the statements to the origin of these statements: 'nature', through the laboratory. The instruments become more and more important in the collection of relevant registrations (Latour, 1995). We will come back to this aspect of scientific research in the next chapter. These allies and reinforcements turn the opinion of opponents into subjective statements (Latour, 1995: 109). As long as the controversy has not been won by one camp or another, their statements remain in a twilight zone between 'fact' and 'artefact', objectivity and subjectivity (Latour, 1995). The only way to get out of this impasse is by finding new and stronger reinforcements to force the opponent to change camp (Latour, 1995). The ordinary man (as Galileo put it) cannot do this, because doing this, costs money, one needs a laboratory, time and so on. So having 'nature' on one's side alone, to make the difference between a 'statement' and a 'fact', is not enough. One needs all kinds of reinforcements and allies (Latour, 1995: 127). It are all these processes in the construction of a fact, which are being put out of sight by the 'science-made voice', once a 'statement' has been finally turned into a 'fact'.

Latour showed how the argument that science is simply having access to 'nature', and others don't is not true. Latour showed how the conclusions of controversies are not based on having access to 'nature', but that all kinds of messy processes, controversies, rhetorics, looking for allies, isolating the opponent's opinion, reinforcements of a more technical nature and so on, all play an as important role in the construction of facts. As a consequence Latour argues that we should not *a priori* keep certain forms of knowledge outside of the scientific debate and accuse them of being unscientific or subjective. In science in the making every statement is situated in a twilight zone between objective and subjective, as long as the controversy has not been won by one or another camp. Therefore *we cannot exclude any statement from the debate*, because *as long as the controversy is going on, there is no security about their subjectivity or objectivity.* For example statements and hypotheses derived from Buddhist knowledge can become object of controversy within 'science-in-the-making'. It is the process of science in action that we will end up with a final verdict about the truth or falsity of these hypotheses. *A posteriori* we can call them subjective, finding their origin within the superstitious belief of the other, or we can call them objective facts. In this way we can come to a radical symmetrical view, but only *a posteriori*. To state *a priori*, that "we", in the West exclusively have access to the truth, because "we" have science, and consequently refusing to open the dialogue with other knowledge systems is a very fundamentalistic and little scientific attitude. So in answer to our question stated in the former chapter: "Was the resistance against the speech of the Dalai Lama a scientific attitude?", we have to conclude: "No.".

The difference between 'science-in-the-making' and the 'science-made voice', is crucial if we want to have a meta-view on for example the debate between scientific materialists and neuro-phenomenologists, in which 'science' or 'nature' itself is used as an argument by the materialists. The Dalai Lama (2005) for example strongly criticizes the assumption that matter would be the only existing thing, which would

imply that in the end, psychology can be reduced to biology, biology to chemistry and chemistry to physics. He doesn't agree with the statement that mental phenomena are merely epiphenomena of the brain. The materialists would say that it is *unscientific* to say that. However, their assumption that mind can be reduced to matter, is also merely a 'statement', not more than a hypothesis which is subject to controversy in 'science-in-the-making', and has not been proven black on white in order to belong to the 'science-made' part of science. The scientific materialists are using the 'science-made voice' in the controversy, stating that they are scientific and have the truth of 'nature' on their side, while banning Buddhism to the 'subjective' side of the asymmetric division.

Also the Dalai Lama (2005) points out that the statement of the materialists is not part of established scientific knowledge, but only a philosophical, metaphysical point of view. In 'The taboo of subjectivity', Wallace (2000) openly criticizes scientists who conflate scientific knowledge (i.e. 'science-made') with the assumptions (i.e. 'science-in-the-making') of scientific materialism. According to the Dalai Lama (2005) it is important to see the difference between those two. It is important to see here, that those materialists are speaking from a 'science-made voice', which is not talking about all aspects in science and is covering up the processes involved in 'science-in-the-making'. However both statement of the Dalai Lama and the scientific materialists are hypotheses, merely statements in a process of 'science-in-the-making'. More research and more controversy is needed in order to consolidate one of the 'statements' into a 'fact'. One cannot just *a priori* state that what the Dalai Lama, (and many scientists with him) claim, is unscientific, for the sole fact that it is a 'statement' inspired by Buddhist theory. If those scientists then claim that their statements are true because they are scientific, this is a form of dogmatism (Dalai Lama, 2005).

Wallace states that in the history of science, advances were made by challenging unquestioned assumptions, and not by demanding that everyone share them, because they are made by scientists. According to the Dalai Lama (2005), it is not because, all mental states, have been found to come forth from certain physical states, that the opposite possibility can be excluded (Dalai Lama, 2005). There is no scientific evidence for the statement that no mental states can influence the brain (Dalai Lama, 2005). As part of this controversy many scientists have set up experiments and the scientific literature on the subject is becoming more and more technical trying to find more and more reinforcements to strengthen the statement that mental states can also have influence on the brain. We discussed these experiments in part IV.

According to Wallace (2002a) scientific materialism moreover places a taboo on the empirical investigation of subjective events from the first-person perspective because of their refusal to consider that mental phenomena might be not simply epiphenomena of the brain. Because of this they are marginalizing introspection, as a means of observing mental phenomena, and replace the spirit of empiricism with a dogmatic adherence to uncorroborated assumptions which have always been the bane of scientific progress (Wallace, 2000).

2.2 Giving Buddhism a voice: looking for a way out of the objective-subjective dilemma

2.2.1 Relativism as answer to the 'objective' scientific bastion

In order to fight against the asymmetrical division which classifies non-scientific knowledge as subjective and irrational, a lot of authors try to bring the authority of science down, by showing that science doesn't differ from any other belief system or worldview, and has no exceptional claims on the truth, by which science distances itself from other kinds of knowledge. The constructivist, anti-realist or relativist reasons as follows: the actual methodology of science is profoundly theory-dependent (Hempel, Putnam, & Essler, 1983). Facts are constructed from the theoretical tradition in which the scientific community in question works (Hempel *et al.*, 1983). According to relativists, we are imprisoned in language and will never be able to reach beyond our biases (Latour, 1999). We are stuck in our own truths and have no direct access to objective reality. The optical metaphor is used to explain how scientists filter what they see through tinted lenses, which biases and distorts their vision of an object (Latour, 1999: 136). This is as much the case for science as other forms of knowledge in other cultures.

Relativists or postmodernists, will as a consequence take a symmetrical position, in which science is treated and evaluated in the same manner as other kinds of knowledge. Relativists will look for sociological, political or psychological explanations, to clarify certain scientific findings, something which in the asymmetrical division is only done for the traditional knowledge of other cultures, whereas for science, 'nature' served as the sole explanation. In this post-modern predicament, science itself is submitted to the same doubt, science itself is transformed into a 'belief' (Latour, 1999: 12). Scientists now have world views, or paradigms, representations or categories, concepts or *preconceptions* with which they interpret what the world is like. They have no direct access to 'nature', as realists claim. Just like other cultures, they only have access to representations of this nature. So the relativists conclude that all science is subjective.

The relativists' stance is an important argument which is sometimes used, in order to be able to give Buddhism a voice in the debate with science. The argument states that it is not only Buddhism which is 'cultural', but science is as much culturally embedded. Pickering (1995), who eagers for the dialogue between cognitivism and Buddhism, for example, argues that the postmodern turn has critically re-assessed science and concluded that it is not a uniquely powerful investigation of nature, but is also merely one of the many culturally supported knowledge systems (Pickering, 1995).

Latour argues that the asymmetrical division has gone too far turning everything else into a 'belief' (1999). Latour, however is not a proponent of the relativist view on science, since, this makes us lose the most important aspect of science (Orye, 2005-2006). Latour argues that there really is a difference between science and non-science. We will come back to this later. According to Latour (1995), a symmetrical point of view is as dangerous as an asymmetrical point of view. In both cases the specific characteristics of science are ignored. Both see the world and the mind as

separated. This Cartesian division, we have seen in part II, is typically Western. Latour (1999) highlights the strange position Descartes is taking in this: a mind which is looking at the world from the inside out. According to Latour we haven't moved an inch since Descartes, the mind is still in its vat, disconnected and contemplating the world. Relativism didn't bring anything new to this underlying division. Latour (1999: 11) wonders why we need the idea of an outside world looked at through a gaze from the very uncomfortable observation post of a mind-in-a-vat. According to him (1999: 12), the idea of a complete outside world was dreamed up by epistemologists. Instead of retracing back our steps to where the mind was seen as loose from the world, now there were a whole range of intermediaries through which the world should pass in order to reach the individual mind. People were now locked not only into the prison of their own categories, but into that of their social groups as well (Latour, 1999: 6). Latour wants to do away with this division altogether. He (1999) admits (like the relativists) that science is also influenced by extra-scientific factors. But he states that *a posteriori*, scientists are able to come to 'facts', rather than just 'statements'. Therefore, Latour's approach is termed 'radically symmetrical'. His view on facts is very specific and cannot be equalled to either the relativist or realist point of view. We will come back to this later in this chapter.

2.2.2 The intersubjective worlds of Buddhism and science

Above we have outlined how 'science' is itself used as an argument in controversies, in an attempt to ban Buddhist statements to the subjective side of the asymmetrical division installed by the 'science-made voice'. Buddhism is still a dangerous kind of knowledge for respectable scientists to engage with. They could damage their reputation as real scientists and risk being classified on the other side of the asymmetrical division, which is a terrible expulsion from the well-respected scientific networks and by which one risks never to be taken seriously any more as a scientist. This is a very strong rejection and scientists are very sensitive to it. The fact that Buddhism is often associated with 'religion' is in itself enough to reject it from the scientific debate. It is thus a risky business for scientists to associate themselves with Buddhism. We showed above how the argument of 'science' or 'nature' cannot do in a controversy because those scientists using this argument are pretending to speak from a science-made part of science, rather than from the controversy of science-in-the-making in which they find themselves. Thanks to Latour's conceptualisation of science, we can reframe this argument and neutralize it. This is very important, because scientists, sensitive to the false argument of 'science' have put up constructions in order to neutralize it, which have, according to me, only led to more problems and confusion. The argument of 'the intersubjective worlds of religion and science' proposed by Wallace[28] (2005) is an example of this.

[28] Even if Wallace's solution to the problem of the intellectual isolation of Buddhism in the scientific debate in the form of his proposal of intersubjectivity was taken over by many other

This argument has moved the fundamental and important differences between science and Buddhism out of sight. These differences that make both science and Buddhism to be very valuable, are ignored by this argument. Moreover, the argument stating that both Buddhism and science are intersubjective, has not reached its desired effect, namely to give a legitimate voice to Buddhism in the scientific debate. Those who argued for it, were simply classified in the camp of relativists, rather than that their argument was taken seriously.

Wallace (2005) criticizes metaphysical realism that installs the asymmetrical division. In this way he wants to criticize those scientists who claim to have direct access to 'nature' through science and accuse all those who don't have science of being subjective. Doing this, Wallace seeks the help from a field of research which is considered real science, namely physics. Werner Heisenberg (1962: 58) concluded after his research in quantum physics that we are not as such observing nature, but are looking at nature through the lenses of our questioning. In this way, it is the theory which decides what we observe (Heisenberg, 1971: 63). As scientists interpret the data gathered from their measuring devices, they must distinguish between significant data and noise. The theory they use plays an instrumental role in making such choices, deciding what is visible and what remains unnoticed (Wallace, 2001). Thus the perceptual objects detected with the senses or with the instruments of technology do not exist independently of those modes of detection or our conceptual frameworks through which such measurements are filtered (Wallace, 2001).

Subject and object, seem somehow to be inextricably related (Zeilinger, 2003). Our observation (subject) of a tree (object), for example is possible only in dependence on a conceptual scheme (Wallace, 2005). Velmans (1999) argues that if we each live in our own private phenomenal world, than every observation, including objective scientific observation, is subjective. Velmans (1999) argues that all observed phenomena (and not only consciousness) are in this way, private to a given observer. Objective phenomena cannot be objective in the sense of observer-free (Velmans, 1999). Hilary Putnam (1990: 318) also argues that the very project of representing ourselves as being 'mappers' of something 'language-independent' is fatally compromised from the very start.

According to Wallace (2002a), the empirical data that we perceive together with our scientific theories, all consists of mental representations within our heads. In his point of view, we would have no objective yardstick with which we can compare those representations with the real world. Wallace comes very close to the relativist point of view. However, we can't accuse Wallace of relativism, since he (2005) does

scientists, apparently, Wallace, now has found a better way. Namely to prove the Buddhist statements about meditation in a rigorous scientific way, rather than an intersubjective way. As we saw in part IV, chapter 4, he is planning to do this with the Shamatha project.

recognize that some concepts do not just exist in our minds or conceptual frameworks but are linked to something existing in the objective real world. Wallace (2006d), admits that certain things, really do exist and we are able to gain knowledge about them. He (2000) acknowledges that scientists know they are observing phenomena in nature and not mere artefacts of their modes of observation, by detecting them with diverse instruments and modes of experimentation. As an example he uses the existence of the stars, but he doesn't work this out in detail. Latour does work this further out in detail as we will discuss later. Wallace (2005) argues that in science, these discoveries can be verified by a select group of experts. The proponents of this line of argumentation conclude that all scientific measurements are made within the context of the intersubjective world of science and that is as far as an objective yardstick can be.

Intersubjectivity is about being testable by empirical methods and verifiable by other competent observers. When the experiment is run twice with the same initial conditions you should get the same results (Wallace, 2000). Wallace (2006e) refers in this context to mathematics, which he considers to be an internal mental practice. The way experts in mathematics test the results of their colleagues can, according to him, be compared with the way highly trained contemplatives have been replicating each others work. Using the example of maths, we can only confirm the findings of a mathematician by applying our own analysis to the data (Wallace, 2000). Even if the mathematicians' findings are considered public and third-person observations, if and only if we pursue the same research ourselves we can test them. This leads Wallace (2000) to conclude that all third-person research in science really consists of multiple first-persons doing their own research. In this way also the first-person methodologies in Buddhism, such as meditation, can come to intersubjective or objective observations within a community of suitably trained observers (Velmans, 1999). In the Buddhist tradition it is indeed so that if subjective meditational experiences want to claim any validity, then it has to be possible to verify them through repetition by the same practitioner or by other practitioners, if the same meditation technique is used (Dalai Lama, 2005).

This argument of intersubjectivity allows these authors to put Buddhist discoveries on equal footing with scientific discoveries. Also Buddhism is based on intersubjective statements, and is not merely 'a belief'. In the case of meditation, discoveries can be verified by a select group of other contemplatives. According to Wallace (2003b), the objective appraisal of Buddhist practices could be tested by engaging in the Buddhist practices oneself, just as one might test a scientific theory by running experiments oneself. These discoveries are made in terms of their own firsthand experience, and can only be reported verbally or in print (Wallace, 2003). Findings are subjected to peer review, by fellow contemplatives, who may debate the merits or defects of the reported findings (Wallace, 2003b).

Although, the objects of contemplative experience are more private, Wallace (2000) reasons, scientists are no more capable of proving the validity of their most sophisticated theories to untrained and even sceptical people than contemplatives are able to prove theirs. Just like in meditation, a scientific discovery can also be validated only by a relatively small number of experts within a specific field of research. In this way, science should be intersubjectively retestable by anyone with the suitable instruments, to replicate the results (Flanagan, 2006). In this view, other scientists and the general public can do no more, than accept the discovery on the

basis of faith in the experts (Wallace, 2003b). So, according to proponents of the argument of intersubjectivity, science and Buddhism are the same, also in their way of empirically testing the statements of other experts.

The only difference between Buddhism and science that remains is that in Buddhism the discoveries are done and tested by other experts by *experience* and not in respect to an objective reality, independent of experience. But as showed earlier in the first argument against the realist point of view, also the discoveries of science cannot be confirmed in relation to a real, objective world that exists independently of experience, but are embedded in the *experience* of a select group of scientists (Wallace, 2005). Also observed, physical phenomena are the entities and events that scientists *experience* (Velmans, 1999). In this empirical way, scientists would test their theories, and also establish intersubjectivity, repeatability and so on (Velmans, 1999). It is on this point that with Latour we strongly differ in our opinion with Wallace and Velmans. This argumentation is ignoring a very important aspect of science. We will discuss this extensively below.

Velmans (1999) summarizes the empirical investigation of external and inner events as the carrying out of procedures in order to come to the observation or experience of very specific results. So whether we use an EEG to see brainwaves or whether we use the shamatha mind to observe mental events, both could be termed intersubjective, thus objective, thus scientific observations, since both, indeed use very rigid and highly systematized protocols and ways to neutralize biases. A very tempting solution, but unfortunately we cannot agree with this.

Both science and Buddhism can be confirmed by experts, but by their experience. I think a positive aspect in this argumentation, is that it admits that Buddhism has a way of verifying its statements, as well as science. But I think it is not such a good argument to argue that both ways of verifying, science and Buddhism, happen in the same way by *experience*. If one practitioner claims to have discovered something by meditation, it seems obvious that other practitioners can verify this by doing the same meditation, thus by experience. Anyone who follows the instructions and has the courage and patience to become an expert in meditation can test the claims made by Buddhist contemplatives concerning the mind. But do experts in a certain field of science, really only verify the findings of scientists in another lab by their intersubjective experience? I don't agree with the point that in science, hypotheses are only put into words and can only be tested by experience. We will outline this argumentation below with Latour.

Earlier, I showed with Latour, that the realist point of view and the science-made voice connected to this, is very problematic and shows a deformed image of what science is. Latour has extensively argued, on the basis of his empirical research into science, that the science-made voice, which installs this asymmetry, is not showing the whole picture of what science is actually about. We have problematized this way of setting Buddhism aside of the scientific debate in itself. The solution of intersubjectivity is not a good solution, since it is ignoring, crucial, valuable characteristics of both science and Buddhist methodologies. We will outline these fundamental differences in below. With Latour we try to find an alternative route, while respecting both the fundamental characteristics, which make science into science, and Buddhist inquiry into another form of knowledge. In this we hope to

reach the same goal as that, what Wallace is fighting for, namely giving a legitimate voice to Buddhism in the scientific debate.

2.2.3 Loading the objective world into the scientific debate

Latour questions the dualism between objectivity and subjectivity, human and world. The philosophy of language makes it seem as if there exist two disjointed spheres separated by a unique and radical gap that must be reduced by the search for correspondence, for reference, between words and the world. By his empirical research, Latour (1999) comes to an entirely different conclusion. We will outline his investigation and his conclusions below. Latour follows a group of scientists in their fieldwork in the Boa Vista forest and their later work at the office. The objects of his study are trying to discover whether the forest advances or recedes. Latour (1999: 30) in studying them wants to know how the sciences can be at the same time realist and constructivist, immediate and intermediary. He asks the question philosophers of science asked, but with the help of an empirical grounding: "How do we pack the world into words?". Latour uses his report on the expedition as a chance to study empirically the epistemological question of scientific reference raised by philosophers. The scientists collect earth from different places in and next to the forest. Following this, one doesn't move directly from objects to words, from the referent to the sign. There is an 'intermediary pathway'.

The earth, collected in the forest becomes the carrier of a numbered code in a pedacomparator. It is lighter than the forest, yet heavier than the paper. It is more mobile than the savannah, but less mobile than a diagram. Soon the clump of earth will be defined by a colour. After this, we move from the pedacomparator to a diagram in which colours become numbers, from the hybrid earth-sign to the paper (Latour, 1999: 54). Have we crossed the sacred boundary that divides the world from discourse? Obviously yes. This new leap is no more distant than the preceding one, in which the earth extracted and cleaned of blades of grass and worm faeces was defined by a colour. At every stage we have a common operator. These common operators are linked in a series that passes across the difference between things and words: earth becomes a cardboard-cube, colours become numbers, and words become paper. Through successive stages they link us to an aligned transformed, constructed world. We no longer portray scientists as those who abandon the realm of signs, politics, passions, and feelings in order to discover the world of cold and inhuman things in itself, "out there". We are talking about hybrids tying words to things, which are, so to speak, behind them, accessible only through highly indirect and complex mediations of different series of instruments.

At the one extremity we have the forest of Boa Vista and at the other extremity a phrase: "the forest of Boa Vista". Let us erase all the mediations that Latour described and in the place of the forgotten mediations, let us create a radical gap. This is what philosophers do, according to Latour. What Latour does in his empirical research is analysing how language slowly becomes capable of transporting things themselves without deformation through transformations. The notion of the huge gap between words and world made it impossible to understand this progressive loading. Getting rid of a non-existing gap and a non-existing correspondence between words and world, is not at all the same thing as saying that humans are forever stuck in the prison of language. It implies exactly the opposite: *non-humans can be loaded into discourse* (Latour, 1999: 96).

Having made the passage from a clump of earth to a sign, the soil is now able to travel through space without further alterations and to remain intact through time (Latour, 1999: 51). With the diagram, the forest-savannah transition becomes paper, admissible by every article and transportable to every text, the place of scientific controversies. This is what Latour (1999: 55) means by 'circulating reference'. This is what makes the scientific text different from all other forms of narrative. It speaks of a referent present in the text, in a form other than prose: a chart, a diagram, a map or a sketch (Latour, 1999: 56). Mobilizing its own internal referent, the scientific text carries within itself its own verification (Latour, 1999). The truth of what scientists say comes from the safety provided by the 'circulating references' that cascade through a great number of transformations.

This is why science can really say something about reality, rather than only staying trapped in its own conceptual frameworks. Therefore, Latour cannot be accused of relativism. He states that through the practice of our laboratories, we are relatively sure of many things. According to Latour (1999) it is a matter of moving toward the world, making it mobile, bringing it to the site of controversy, keeping it engaged and making it available for arguments (Latour, 1999: 100-101). Instead of moving around the objects, scientists make the objects move around (Latour, 1995: 284). According to Latour, the more connected a science, the more accurate it becomes. This quality of a science's reference does not come from some *salto mortale* out of discourse and society in order to access things, but depends rather on the extent of its transformations, the safety of its connections, the progressive accumulation of its mediations, the number of interlocutors it engages, and its ability to transport nonhumans into words (Latour, 1999). In isolation, it would have no further meaning. It replaces without replacing it. It is a strange transversal object, truthful only on condition that it allows for passage between what precedes and what follows it: from the clump of soil of the forest of Boa Vista, over the pedacomparator to a colour-earth sign, to a number in a diagram.

If we question the scientific statement, we don't abandon literature in order to step into 'nature' as such, as believed by realists. Nature isn't present immediately under the scientific text; it is present there in an indirect way through intermediary pathways (Latour, 1995: 92). What is behind a scientific article, are registrations, acquired through instruments which are foreseen from a verbal comment by the scientist (Latour, 1995: 94). 'Circulating reference' does not stop with data. It has to flow further and convince other colleagues as well. Scientists bring in non-humans to convince, it will help them for no-one to accuse them of seeing only what they want to see (Latour, 1999: 95). So mobilizing things is, according to Latour (1999: 96), typical for scientific research. According to Latour (1995: 265) this is the big difference between science and other forms of knowledge.

We agreed with Wallace's argument of intersubjectivity, on the point that Buddhists have ways to verify and test the statements made by other contemplatives. They do this by experience, using the same meditational practice as the other. We didn't agree with the argumentation of intersubjectivity, that this would be the only way scientists can verify the findings of other scientists, namely through *experience*. Latour indeed recognizes, as Wallace states that scientists don't jump out of the world of words into reality. Latour claims exactly the opposite: reality is transformed and transported into the scientific text. Anyone reading the text and wanting to test the statements made in it, can trace the words back, following the 'intermediary

pathways' that connect the words with 'nature' behind the text. This is something which cannot be done with the experiential observations in meditation. However the material correlates in the brain waves, for example can be measured with EEG, put into diagrams and transported to the site of scientific controversy by 'intermediary pathways'. This is where science significantly differs from Buddhist methodology. This is what makes science unique and valuable and what is lost by the argumentation of intersubjectivity. However, this doesn't mean that Buddhism, becomes unscientific an irrational because of this. With Latour we already showed that the asymmetrical division installing these accusations is not based on what science really consists of. Recognizing science in its valuable aspects and leaving this asymmetrical division behind us, will allow us to look at Buddhism in its own uniqueness and valuable aspects.

2.2.4 Science: 'Fact' or 'fetish'? How about 'factish'!

With his observation of the expedition of scientists in the Boa Vista forest, Latour wants to show how unrealistic most of the philosophical discussions about realism have been (Latour, 1999: 30). The old settlement started from a gap between words and the world and then tried to construct a tiny footbridge over this chasm through a risky correspondence between what were understood as totally different ontological domains: language and nature. Latour (1999) shows that science does something entirely different than realist painting or making an exact copy of the world. According to Latour (2002: 19), modernism has never been anything more than a highly biased interpretation of events. However, we cannot push Latour in the opposite camp of the relativists either.

Latour (1999: 66) asks whether the diagram of the Boa Vista forest in the scientific text is a discovery, a construction, an invention or a convention. His answer is: "all four". The diagram is constructed, we have invented it, it also discovers a form that until now was hidden and it uses conventional codes. All these (for philosophers) contradictory qualities ballast this diagram with reality. It is not realistic, it does not resemble anything, it does more than resemble, it takes the place of the original situation (Latour, 1999: 67). According to Latour (1999), scientists do not speak of the world, but, rather *construct* representations that bring the world closer. Latour states that Western science is not as objective as if it would only say things about *the* reality, 'Nature'. In science it is about the *construction* of facts. When Latour (1999: 15) states there is no outside world, he doesn't deny its existence, but on the contrary, refuses to grant it the a-historical, isolated, inhuman, cold, objective existence that it was given only to combat 'the crowd' in an asymmetrical division.

In contrast with the relativists, Latour, asks the question why there are winners in debates. The specific characteristic in science is that at a certain point there are winners and 'facts' are discovered (Orye, 2005-2006). When Latour (1999: 293) talks about the construction of facts, he is not talking about the kind of social construction postmodernists or relativists talk about. In the latter kind of construction, construction is seen as opposite to reality. According to Latour (2002), facts are really apprehended, even if we take the process of construction of them into account. Subject and object come into existence simultaneously when scientists make facts by progressively convincing more and more colleagues (Orye, unpublished manuscript). What Latour observed is a human activity of fact-producing that cannot be caught in these dualisms (Orye, unpublished manuscript). In contrast

with the relativist point of view, 'facts', rather than 'artefacts' are really construed. The question now is whether it is a good or a bad construction (Orye, 2005-2006). That which is produced could also be an 'artefact'. The construction of a 'fact' is often a collective process in which many different scientists are involved (Orye, 2005-2006).

By the concept 'factish', Latour wants to give a place to the impact of both the scientist as well as the object on the construction of 'facts'. This concept is derived from on the one hand 'fetish', which in itself doesn't carry any meaning, meaning is (mistakenly) projected on it; and on the other hand 'fact', which indicates that the 'factish' does contain reality, though the 'fact' is also fabricated, in the laboratory, through a complex negotiation (Latour, 1999: 272). With this concept, Latour steps outside the Procrustean bed of the modernists: are scientific facts real (realists) or constructed (relativists) (Latour, 1999). The solution of the 'factish' is not to ignore the choice. The 'factish' shows an entirely different move: the fact is so real, autonomous, so independent of our own hands, exactly because it has been constructed (Latour, 1999: 281). If we ask who fabricated the fact, the scientist or the thing. If you answer the thing, then you are an outdated realist. If you answer the scientist, then you are a constructivist. In Latour's (1999) point of view, we would have to say it is both (Latour, 1999: 281).

According to Latour (1995), we can be relativists, as long as the controversies in 'science-in-the-making' haven't been won. We can accuse the other of seeing things in his head only, and that his statements don't say a thing about reality. But from the moment that there is no more controversy about the status of a 'fact', we shouldn't keep on arguing that it is all about interpretation, representation and something happening in the head of the scientists.

Latour (1999: 194) claims we shouldn't even try to overcome the subject-object dichotomy, it is made not to be overcome. Latour shifts the attention from this theory of science to the practice of science. There is no world outside, not because there is no world at all, but because there is no mind inside, no prisoner of language with nothing to rely on but the narrow pathways of logic (Latour, 1999: 295). The distinction between subject and object, science and politics, facts and fetishes render invisible the complicated means by which all these categories are mixed (Latour, 1999: 278). In the theories of science: subjects and objects are infinitely distant. Latour wants to abandon the division of a speaking human and a mute world, or words on the one side and world on the other (Latour, 1999: 140). In the practices of science, subjects and objects are intermingled to the greatest extreme. Modernists are obsessively silencing the practices involved in science-in-the-making (Latour, 1999).

According to Latour, the *a priori* dualism between subject and object, science and culture, fact and fetish don't tell us anything about the complexity of reality. According to him the notions of 'belief', illusion, and inner representations versus knowledge, truth, and reality, are the consequence of artificially splitting the 'factish' into two (Latour, 1999: 285). Latour refuses an *a priori* distinction between knowledge and 'belief', rational and irrational, objective and subjective, 'them' (for example Buddhist knowledge) and 'we' (i.e. Western science). Latour proposes a symmetrical approach, treating scientific and cultural knowledge the same way, as opposite to an asymmetrical division that evaluates science and other kinds of

knowledge in a different way. The term symmetrical should be read as a rejection of the asymmetrical approach that *starts* from certain dichotomies and divisions between "them" and "us", between 'belief' and knowledge, ..., making Buddhism mute and unable to raise a voice in the scientific debate. His approach is radically symmetrical because he does see this as a possible *a posteriori*. After extensive controversy one can decide that one statement is merely a 'belief', an 'artefact', while the other statement is a 'fact', whether the statement originated in Buddhist psychology or in Western psychology. The clean image of science-made, with nice divisions between fact and fiction, between subject and object, between truth and falsehoods, is reconstructed as a possible end result of what are long, messy controversies (Orye, unpublished manuscript). That is why we call Latour's approach a *radical* symmetrical approach.

2.2.5 Appreciating science as unique and different from Buddhism

Wallace, (2000) in his argumentation on intersubjectivity, states that indeed the stars do exist, but all true statements about reality fall within a conventional-factual spectrum. The data collected arise both in dependence upon the objective phenomenon being studied and the measuring device itself[29] (Wallace, 2001). This means, that indeed science is influenced by subjectivity, but next to that there is a way of verifying scientific statements in the objective world as well. It is the latter that Wallace and other authors de-emphasize in their argumentation of intersubjectivity. It is this connection with the objective world through referential pathways that makes science to be more than merely intersubjective. Science does have access to an objective world in a public way, through 'referential pathways'. The validity of the arguments can be traced down through the 'referential pathways'. But once this continuous path of transformations is broken, then the quality of the reference deteriorates.

It is not merely through *experience* that a small group of experts can verify the validity of the statements of other scientists, as proponents of intersubjectivity claim. We do recuperate Wallace's argument that Buddhism also has ways to verify its

[29] Wallace is undoubtedly influenced by the Madhyamaka philosophy. The Madhyamaka point of view, is derived from perceptual knowledge about the interaction of the mind and the world. It outlines a middle way between relativism and realism, between the view of an absolute self-subsisting reality and the view of no reality (Bitbol, 2003). There is no reality independent of all perception, no reality that defines itself by itself, as those who believe in realism would hold (Ricard, 2003). Nor are phenomena a projection of the mind, as relativists would think (Ricard, 2003). Just like in Latour's theoretical construct 'factish', the Madhyamaka view rejects the philosophical extreme of metaphysical realism, and the cultural relativist or postmodernist view that no truth-claims can be made about anything independently of the culture in which they are embedded (Wallace, 2001). In the middle way, subject and object are always interrelated and neither exists without the other (Wallace, 2006b).

statements within reality, through experience. But as we showed above, science has a way of verifying its statements in a different way than through experience. Reality can be made present in the scientific debate through 'referential pathways'. Experiences, can be expressed through words in a debate, but cannot be loaded in the debate through 'referential pathways', which are retraceable by any outsider. In science, intersubjective verification cannot do, as many authors have rightly remarked before. Outsiders, who don't meditate cannot test or retrace the statements of contemplatives or they would have to become experts in meditation. Only other experienced contemplatives can test it intersubjectively. But scientists will never accept their words on faith. Proponents of the dialogue between science and Buddhism and the participation of Buddhism within science have come up with another, better solution ('mutual circulation' discussed in chapter 4 of part IV), which includes both ways of empiric inquiry, the one specific to science (through 'referential pathways') and the one specific to Buddhism. We will discuss the specificity of the Buddhist way of inquiry in chapter 3 of part V.

Both Buddhist and scientific ways of verifying statements in reality could be termed empirical, because they don't stay trapped in their own conceptual frameworks, however they do differ significantly from each other. Both have very different methods to penetrate into the nature of the world (whether the physical or the mental world), and to represent this to a community of other experts. These are two major differences which are lost in the argumentation of intersubjectivity.

2.3 A plea for more controversy, debate, research and dialogue

We paid a lot of importance to Latour's empirical research on science. The way science is considered, will have consequences on the many ways to talk about other kinds of knowledge (Orye, 2005-2006). Latour's view on science in action and the construction of facts, will help reframe the position of Buddhism in the scientific debate. Latour's new conceptualization of science based on his empirical research, results in a plea for debate, as opposite to the *a priori* exclusion of certain statements or types of knowledge from the scientific debate, such as Buddhism. Next to giving social explanations to science (as relativists do), one should also take science seriously (Latour, 2005a). But Latour argues that this applies just as much for 'religion' or cultural knowledge. This doesn't mean that Latour argues cultural knowledge such as Buddhism has to be the same as science, he does consider the two types as different kinds of truth-generators (Latour, 2005a). We will come back to Buddhism as a different type of truth-generator in the next chapter. As we showed above, Latour does clearly state that science is a very specific type of knowledge, its 'referential pathways', are distinguishing it from other types of knowledge. On the other hand, Latour does not agree with the nice and clean image of science presented to us by the 'science-made voice', but through his empirical research, he shows us the messy and complex world of 'science-in-the-making' which mixes all those categories of subjective, objective, construction, discovery, the rhetoric used by scientists, scientists looking for allies and other reinforcements in the lab, ...

Latour's research has presented us with a totally different image of science than the clean asymmetrical division presented to us by the science-made voice:

Asymmetrical division:

Subjective	Objective
Belief	Science/ Knowledge
Culture	Nature
- culture 1	
- culture 2	
- culture 3	
- Buddhism	

With his concept of 'factish' Latour moves science on both the objective and subjective side of the division. In the same movement he argues for moving cultural knowledge to both sides of the division as well. The debate between Buddhism and science can now start off from an equal status. Buddhism can have a legitimate voice in the scientific debate. Here we come to a symmetrical view on science and Buddhism. But this symmetrical view is radical, because *after* the controversies, debates, bringing in reinforcements, it is possible (in contrary to what relativists say) to have winners and to produce 'factishes', which are real. For example: the Buddhist statement that mountain Meru is the central point of the universe is *a posteriori* considered an 'artefact'.

Radical symmetrical approach

Controversies: subjective/objective	Factish: subjective/objective
Science-in-the-making	Science-made
- cultural knowledge	- "the earth is round"
- scientific hypotheses	- "meditation influences brain"
- Buddhism	
- "Shamatha meditation trains the attention"	

Latour does not want to exclude certain forms of knowledge, *a priori*, for the sole reason that they don't resonate with the presumptions of the Western scientific paradigm, such as scientific materialism, or cognitive psychology. Latour (2002: 42) pleas for more controversies, confronting good and bad constructions. Reality is that which resists the reinforcements of others in a controversy (Latour, 1995: 122). We

should take seriously the diversity of the worlds, to refuse to accept mere tolerance (Latour, 2002: 29). After all, reason is not so weak that it can never win. It has just been a little too long since it had a chance to fight, for lack of real enemies acknowledged as such (Latour, 2002: 37). For example, the field of consciousness studies and cognitive neuroscience has ended up in a recurrent repetition of the same kinds of arguments (Varela *et al.*, 1999). According to neuroscientist Francisco Varela and many of his colleagues, the cause of this is, that it has been far too much under the influence of one particular style of philosophy of mind, cut off from other traditions, such as Buddhism that have made their speciality the methodical exploration of human experience (Varela *et al.*, 1999). What is needed is a form of pluralism, an approach to science that allows a thousand flowers bloom, each in its own way (Hut, 1995). Also Latour (2004) argues for multiple methodologies in the scientific studies. So Buddhism can comfortably be totally different as a method, than say science, without therefore being excluded from the scientific site of controversy and research. The ideal of science to seek to identify unquestioned assumptions and common sense with a healthy scepticism, should be maintained, rather than protecting certain 'scientific' assumptions, which are merely hypotheses (Wallace, 2000).

So if psychology and Buddhism are both investigating these very similar areas of the human mind and experience, why would they continue to generate knowledge separated from each other. Why would we for example value the cognitive hypothesis, that consciousness is inherently linked with language, more than the Buddhist statement that a non-conceptual state of conscious is possible? We cannot simply dismiss a non-scientific statement because the opposing statement is a scientific hypothesis. Hypotheses are hypotheses and ask for more research, more controversy, until one of the statements is turned into a 'fact' rather than an 'artefact'. This implies that different traditions should debate each other and try to prove the other wrong. If both traditions share an interest in the mind, why should they not debate each other? Because one is science and the other is not? We cannot decide *a priori* that one is talking about facts and the other about artefacts, therefore extensive research, debate, dialogue and controversies are necessary.

According to Kabat-Zinn (2003) there is nothing particularly Buddhist about mindfulness for example. We are all mindful to one degree or another, moment by moment, it is an inherent human capacity, which can be trained. According to Kabat-Zinn (2003), dharma, as a specific kind of knowledge, is at its core not exclusively Buddhist. He claims it is neither a 'belief', an ideology, nor a philosophy. It is a coherent phenomenological description of the nature of mind, emotion and suffering and its potential release, based on highly refined practices aimed at systematically training and cultivating various aspects of mind and heart via the faculty of mindful attention (Kabat-Zinn, 2003). Why would we continue to call science the truth, while *a priori* categorizing Buddhism as merely a 'belief', as done in the asymmetrical division?

The Mind and Life dialogues are an example of how the asymmetrical division was broken. An extraordinary quality of the Mind and Life meetings has been the open-minded, yet critical attitude of Buddhists and scientists, both eager to expand their horizons by learning of the methods of inquiry and the insights of the other (Wallace, 2000). According to the Dalai Lama, Western science and Buddhist philosophy both are not 100% convinced, and don't consider things as absolutely true (Churchland,

1999). That is why they are willing to engage in a dialogue, being open to the statements of the other without *a priori* classifying them as wrong, and us as right. Buddhist theories are considered like hypotheses which need to be tested (de Wit, 1998). Debate has always been considered very important in Buddhism (Wallace, 2006a). Like in science, also within Buddhist traditions there is still a lot of debate and controversies around certain subjects. One hot topic for example is perception (Dalai Lama in: Varela, 2003). Different Buddhist systems have rather different ideas about what the selflessness of phenomena would be about (Tenzin Gyatso, 1984).

In the Mind and Life conferences, scientists and Buddhists discussed in a polite and respectful way, but nevertheless both dared to express to the other party when and where they didn't agree, stuffing their arguments with experimental research. For example when the Dalai Lama didn't agree with the statement of one scientist, he would challenge that scientist to prove his own statement wrong, by collecting more reinforcements in the lab. Since the Dalai Lama himself is not a scientist, he doesn't possess a lab, but scientists were willing to follow his advice and set-up experiments, stuffing the following Mind and Life discussions with new reinforcements. Here we can observe, controversies, collecting reinforcements and so on, namely the process of science in action, science-in-the-making. This doesn't become an unscientific process, simply because in this case Buddhist statements are being tested or because Buddhists participate in the discussion.

Typically scientists would publish their findings in scientific articles, moving reality around by 'circulating reference'. For example brain waves were registered during meditation, which were through 'meditated pathways' transformed into a bunch of numbers on a paper, which were as a consequence transportable to the very spot of controversy, bringing in new evidence, new reinforcements. So when we ask the question: is this scientific? Using the theoretical asymmetrical division, we would have to say, that this is not science, but subjective. But this is very confusing, because on the other hand, the results of the research in the lab, are objective. The clean division between subjective, cultural knowledge and objective knowledge can no longer hold in this picture. With Latour, we would have to say, that it is typically science in action. However, we can't help noticing, that Buddhists, even monks (!) participated in formulating hypotheses, debating with scientists, setting up experiments and interpreting the results, some even participated in writing scientific articles. With Latour's reconceptualisation, we can place all these observations. They interact and debate, taking any statement serious, putting it to the test, without refusing it, for the sole reason that it originated in Buddhism. However, *a posteriori,* we do have to deny that the earth is flat and the sun and the stars turn around the middle-point of the earth, namely mountain Meru in Tibet. On the other hand *a posteriori*, we also have to admit, that meditation seems to have effects on brain activity and even brain structure. It is now up to the opponents to prove this 'fact' wrong and turn it into a 'fetish', subjecting it to controversy again. If they don't, we can say, we have constructed a real fact, we have proven, or discovered something about 'nature' or in Latour's words: a 'factish' has been fabricated.

3 Appreciating Buddhism in its uniqueness as a complementary partner in the scientific debate

Now that we made the road clear for a dialogue between Buddhism and science, let's take a look at the specific aspects characterizing Buddhism as different from science. We have seen above that science does differ significantly from other narratives and types of knowledge and that this makes science to be very valuable. In this chapter we want to uncover those specific aspects of Buddhism which make it fundamentally different from science and in the same way a very valuable knowledge and practice.

The Buddhist investigation of the mind by shamatha and vipassana meditation is not only an accumulation of knowledge (as written down in the Abhidharma) but transforms the 'knower', while in science the main aim is to collect theoretical knowledge in order to find out the truth.

The Dalai Lama (2005) points out there is a difference between something which has been proven not to exist and which hasn't been found to exist. Not all aspects of reality can be investigated with the current scientific methods. Science investigates those aspects of reality which are accessible to its specific methods of inquiry. This clearly doesn't include all aspects of human life. For example current psychology and neuroscience lack the instruments to investigate consciousness. Consciousness as object of study is subjective *by definition* while the scientific methodology is characterized by the objective observer, also called third-person methodology and is too limited to study consciousness (as discussed in part IV chapter 4). According to the Dalai Lama the scientific study of the mind is in need of a paradigm change. He proposes to match the scientific method with Buddhist first-person methods of inquiry in a 'mutual circulation'. In this way, also the subjective, phenomenological aspects of consciousness can be studied by *experience*. With this in mind, the Dalai Lama started a 'science for monks' program, which trains these experts in first-person methods of observation, in science and scientific methodologies.

According to the Dalai Lama empirical facts are the basis for a collaboration between Buddhism and science. Buddhist insights in the mind are based on empirical observations (in shamatha and vipassana meditation). The experiential knowledge gained from this, enjoys the highest authority in Buddhism, above logic reasoning and the written knowledge in texts. Just like in science, the empirical facts are more important than the theory. The empirical method in Buddhism, however, differs significantly from the empirical method in science. In order to be able to do contemplative research, one has to develop a fine-tuned attention or mental sense as instrument for precise observations through shamatha meditation. Vipassana meditation entails a systematic investigation of different aspects of the mind. The Buddhist empirical method is different from the one in science, because it entails a *direct, non-conceptual observation without any intermediaries.*

In Buddhist inquiry there are rigorous methods, protocols and procedures to keep an objective attitude, not allowing the analysis and observations to be influenced by preconceptions, expectations or one's *a priori* ideas and cultural conditioning. In this way, the mind is studied in a rigorous, objective way, even if it is done by first-person methodologies, which are often said to be 'subjective'. In this chapter we will

explain how we can understand this objectivity and the important role of *direct, unmediated perception* in this methodology. The movements of the mind can be observed by the contemplative investigator because he trained the mental sense so that it can perceive mental phenomena in this unbiased non-conceptual way. How can this expert now communicate about his observations, which are by definition characterized by non-conceptuality? Descriptions, which make use of words or concepts can by definition not convey the information present in direct, non-conceptual knowledge or experience. If only experienced contemplatives know the referents of the words in the debate, does this leave outsiders confined to the echo-chambers of their preconceptions? This would imply that outsiders are excluded from the debate.

In the former chapter (2) we saw that scientists aren't imprisoned to their conceptual frameworks. Reality is loaded in the scientific text by 'referential pathways'. The concept 'factish' refers to the subjective and the objective reality, present in a 'fact' produced by scientists. By the 'referential pathways' the words can be traced up until reality itself, where the measurements were taken. This is not the case in descriptions about meditational experiences. We cannot trace the words down until inside the mind of the practitioner. 'referential pathways' are by definition impossible in the case of the observations of mental phenomena by the mental sense, since this finely developed tool doesn't make any registrations which can be transported into the scientific text. According to Latour science is characterized by mediated, referential chains, which bring the absent into the scientific debate, while religion is characterized by a search for representations or what is close by, here and now. Because observations in religion have to do with the immediate, direct, as opposed to mediated, indirect referential pathways. Meditation is about being present with one's experience without the interference of language or conceptual frameworks as subjective filters. Latour argues that this immediate and direct way of gaining knowledge cannot be pushed in the procrustean bed of information-transfer, emphasised in cognitive psychology. The particular knowledge generated by this, doesn't possess a cognitive-informative content. Therefore this experiential knowledge is not so easily put into words. What is so typical about meditation, is this non-conceptual aspect in the acquisition of knowledge. In part II and III, we conceptualized these aspects of Buddhist learning processes with Gibsonian ecological psychology and Ingold's application of this conceptual framework in the social sciences. Ecological psychology is able to adopt these non-conceptual aspects in a theory, whereas they don't fit in the paradigm of cognitive psychology, which emphasises the cognitive-informative and verbal aspects of mental maps, rather than these non-conceptual aspects of knowledge (cf. chapter 3 of part II and chapter 2 and 3 of part III). Buddhism is about a very unique method of gaining knowledge, characterized by immediacy and direct observation, without the interference of a conceptual veil, which guarantees objectivity; whereas science is very unique because of its mediated, indirect referential pathways, which also guarantees objectivity.

This conceptually unmediated pure consciousness is simultaneously wakeful and devoid of content. This results in a kind of *felt experience* as perceptual knowledge and is not generated by thinking, but by direct perception of the movements in the mind by the trained mental sense. The information picked-up by this process can be conceptualised by Gibson's information-pick-up theory (see chapter 1 part 1), rather

than cognitive psychology and its theory of information-processing. Information in this sense is not verbal, but has more to do with a certain familiarity.

According to cognitive psychology, this kind of conscious knowledge, beyond concepts is not possible by definition. Because of the underlying cognitive paradigm, it is now commonly *presumed* that conscious activity is always coupled to conceptual, verbal information-processing. Buddhism however claims that by the training of the faculty of distinction, one can consciously perceive, observe and analyze mental phenomena in a non-symbolical, non-conceptual way. Whether this claim is true or not cannot be refuted on the basis of our Western theoretical preconceptions, but is an empirical question and should be subjected to rigid scientific inquiry. Only *a posteriori*, after extensive dialogue, research and debate, we can refute it as an 'artefact' or accept it as a 'fact' in a radical symmetrical approach, as proposed by Latour.

Exactly because the Buddhist and scientific modes of inquiry are so fundamentally different and have access to different aspects of the mind, the combination of both methods in 'mutual circulation' could be so fruitful. This kind of cooperation goes a lot further than solely studying Buddhist texts, or studying meditational experiences as object of science. There are any testable hypotheses in Buddhist psychology that could give new inspiration to the current scientific debate. Buddhist psychology could offer methods for the cultivation of positive aspects of the mind in addition to the current focus of Western psychology on the curation of psychopathology. Buddhist psychology could also contribute o the understanding of the working-mechanisms of the mind. Finally we will also discuss the discovery of science by Buddhism and the development of the project 'science for monks' in the prospect of this cooperation between Buddhism and science in the investigation of the mind and the brain.

3.1 Common grounds and differences between Buddhist and scientific knowledge and methodologies

3.1.1 Truth versus transformation

An important aspect in the training of Buddhists is the investigation of reality (Dalai Lama, 2003b). This is a very obvious common ground between Buddhism and science. But this doesn't mean that Buddhism and science are the same in their ways of investigating reality. They differ significantly in the way they try to gain knowledge about for example the nature of the mind. The aims of Buddhism and science cannot be totally equalled neither (Dalai Lama, 2003b). Buddhism doesn't have as its final aim to map the mind, or give a description of how the mind works (Dalai Lama, 2005). The purpose of inquiry in Buddhism is that it benefits all human beings, while scientists will claim to be in search of the truth regardless of consequences (Flanagan, 2006). The highest aim in Buddhism is to have compassion for all living beings and to work for their well-being and the relief of their suffering (Dalai Lama, 2005). The Dalai Lama expressed how he hopes that the combined methods and insights of modern science and Tibetan Buddhist knowledge would help foster a more enlightened and compassionate human society (in Shönu Gyalchok & Könchok Gyaltsen, 2006). This is fundamentally not a scientific goal, but it is however the main goal of Buddhism. Even if science also hopes to be able to improve human well-being (for example by psychotherapy), the acquisition of knowledge is its highest aim.

3.1.2 Theoretical and applied psychology

The matter of consciousness has received a lot of attention in the history of Buddhist philosophical thinking. According to the earliest Buddhist texts, the Buddha saw consciousness as playing a key role in human suffering or happiness. Buddhist meditation, is even exactly about the investigation of the mind (Dalai Lama, 2005). As in psychology, the analysis of the mind and the functioning of the mind received a central place in the lives of Buddha's followers, and the results of this analysis were written down as the Abhidharma literature, a millennium after the Buddha's death (Ricard, 2003). These Buddhist texts confront us with an array of ideas, theories and taxonomies pertaining the same area as western psychology (de Wit, 1998). The psychological content deals with everyday cognitive processes such as perception, attention and feeling (Pickering, 1995). The Abhidharma is the study of the causal processes of hundreds of mental and emotional states, the subjective ways in which we experience these and the consequences they have on our thoughts and behaviour (Dalai Lama, 2005). Abhidharma is not only a phenomenology of the mind but also an epistemology (Wallace & Jinpa, 2003). The Buddhist theory of knowledge analyses the nature and characteristics of perception, knowledge and the relation between language and thinking, to come to a conceptual framework for the understanding of the different aspects of consciousness (Dalai Lama, 2005).

From the Buddhist perspective, the human quest for knowledge and the understanding of its own existence comes forth from a deep striving for happiness and to overcome suffering (Dalai Lama, 2005). Buddhist psychology is consequently not only theoretical knowledge, but is mainly applied psychology (Ricard, 2003). The theoretical psychology in Buddhism, is meant to be used by Buddhists, and not just meant to be known as some cognitive information in the head, without having an impact on the life of the Buddhist. While the cognitive psychologists or neuroscientist usually remain the same in acquiring knowledge, the Buddhist transforms himself in the process of gaining knowledge (Pickering, 1995). In psychology, however also psychotherapies are derived from the theories in order to help people.

For psychology, the scientific methods are used for the empirical development of a theory, aimed to add to the knowledge of the mind qua object, while the Buddhist practices are especially designed for experiential knowledge and use, aimed at helping those who practise it to lead a more satisfactory life (Pickering, 1995). The Buddhist exercises of cultivating loving kindness and compassion are rooted in the insight of Buddhist psychology, which is an extremely precise analysis of the causal dynamics of mental processes (Dalai Lama, 2005). The Vajrayana, uses visualisation techniques, thoughts, emotions and bodily techniques in order to transform the suffering in the mind into a well-being of the mind (Dalai Lama, 2005). Its aim is to understand the normal, untrained mind and to transform it into its natural state (Dalai Lama, 2005). These learning processes or processes of acquiring knowledge by the Buddhist methodology of investigating the mind (i.e. shamatha and vipassana meditation) have an impact on the individual. In part I we called this (with Smith) 'human learning' and in part II we translated this concept to 'guided rediscovery'. This refers to learning processes in which the pupil has to actively participate, and changes as a consequence of the newly acquired knowledge, as a whole person, including his body, mind, heart, perceptual systems etc. It thus refers to transformation. In Buddhism this is what one actively aims at, by acquiring knowledge.

3.1.3 Limitations in the scientific methods to investigate the mind

In his conversations with Karl Popper, the Dalai Lama (2005) realized an important difference between Buddhism and science. In a scientific hypothesis or theory, one should also include the conditions in which you can show that one's theory would be false: this is called falsification. For example: "God created the world", cannot be a scientific statement, because, the statement doesn't include in what conditions it can be proved false (Dalai Lama, 2005). According to the Dalai Lama (2005), however, this makes that a lot of domains such as ethics, aesthetics and spirituality fall outside of the domain of scientific study. A similarity he found between Buddhism and Popper's falsification principle, however is that there is a big difference between what has been proven not to exist, and that which has not been found to exist. For example if we don't find any sour in this paper, this doesn't mean that there is no sour in the paper, it might mean that we need other instruments, than only our bare eye, in order to find sour in the paper (Dalai Lama, 2005). The Dalai Lama takes the example that science has not been able to prove extensively that beings are not reborn, which doesn't mean that reincarnation has to be excluded of the possibilities. It is not because science hasn't found any evidence for consciousness to exist that it would only be a side-effect of chemical processes in the brain.

The Dalai Lama (2005) met some scientists in Moscow who, while speaking about consciousness, attacked him sharply because he would bring in a religious concept into the discussion. According to the Dalai Lama, it is important that scientists do recognize that there are limits to scientific knowledge, and that not all aspects of reality can be investigated with scientific methods. Otherwise we risk that everything which isn't proven to be right by science, would be termed untrue or not important (Dalai Lama, 2005). If we don't recognize these limits of science, we risk that science will continuously try to show how the convictions of religions are wrong, as was the Dalai Lama's experience with the communist leaders of China who were inspired by Marxist materialism, with whom he negotiated in the 1950s.

We should recognize that science investigates those aspects of reality, which are accessible to its very specific method of inquiry (Dalai Lama, 2005). This model doesn't include all aspects of reality and especially not the nature of the human existence (Dalai Lama, 2005). Like this a lot of scientists agree that current psychology and neuroscience lack the instruments to investigate consciousness (see part IV for an extensive discussion on this topic). The experience of consciousness is completely subjective (Dalai Lama, 2005). Science with her characterizing method of the objective observer, also called the third-person method, has known little progress in the area of consciousness studies (Dalai Lama, 2005). According to the Dalai Lama (2005), this is because science didn't develop the right method to investigate this phenomenon. He strongly questions the possibility to ever gain access to such a subjective phenomenon as consciousness with the objective third-person method. An objective report of a third-person observation of mental states, misses the crucial subjective dimension, the subjective experience of an individual (Dalai Lama, 2005). This objective method, which has proven very valuable in many areas in scientific research, is very limited in order to study consciousness (Dalai Lama, 2005). Goleman and Thurman (1991) suggest, that whereas the West has been concerned principally with the exploration of the material universe, Buddhism has been concerned with developing a refined inner science and that whereas Western science has been concerned with the hardware of the brain, the Tibetan mind science has

been concerned with the software for understanding and modifying the mind. However Goleman (1991) also points out that there are similarities in content between Western and Buddhist psychology.

3.1.4 Third-person and first-person methods for observing the mind

Many scientists agree with the Dalai Lama on this point and have proposed to incorporate Buddhist methods of inquiry of the mind into scientific research, so that these phenomenological aspects of the mind could become accessible in a rigorous way, by science (see part IV chapter 4). According to the Dalai Lama, science is in need of a paradigmatic change, if it is willing to investigate the nature of consciousness. He is a great proponent of the model in which the third-person method is coupled to the first-person perspective in a 'mutual circulation', because one of the main characteristics of consciousness is that it is experienced subjectively and therefore the systematic investigation of it, should happen by *experience* (Dalai Lama, 2005). Because science cannot ignore the phenomenological reality of subjective experience, a cooperation between science and the contemplative tradition within Buddhism could be very fruitful.

In contrast with modern scientific inquiry, Buddhist inquiry is exactly about the subjective experience (Dalai Lama, 2005). The Dalai Lama however adds, how he is conscious about the distrust of scientists in the subjective method, since it is difficult to distinguish between right or wrong, since there is a lack of objective criteria (Dalai Lama, 2005). Stephen Kosslyn, a psychologist at Harvard University has remarked that there are limits to introspection (Dalai Lama, 2005). It doesn't give us any insight in the complexity of the nervous system, the biochemical composition of the brains or the physical substrates of the mental activities. But introspection in a very disciplined way would make it possible to investigate the psychological and phenomenological aspects of consciousness (Dalai Lama, 2005). The bringing together of these two research methods, would according to the Dalai Lama (2005) be an enrichment for both disciplines. In order to study consciousness, we both need a methodology which investigates the neuro-chemical and biochemical level, as well as the subjective experiences of consciousness. Through this combination we can perceive the physical correlates of the rich subjective world (Dalai Lama, 2005). This is also the proposition of Varela, called 'mutual circulation' to include a strict methodology for first-person observation into neuroscientific research. Buddhism and her methods could be very useful in this respect (Dalai Lama, 2005). The Dalai Lama does not only express his hopes of science and Buddhism working together in the investigation of the mind. His monks have for centuries been trained extensively in this first-person method. In order to make his hopes become reality he organized a 'science for monks' program. In this way he hopes that some monks might want to combine the first-person method of observation with the third-person method of observation.

3.2 Empirical research in Buddhism and science: 'perceptual knowledge' versus 'referential pathways'

3.2.1 Science and Buddhism: both empirical?

According to the Dalai Lama (2005) both Buddhism and science are convinced that we should use empirical facts in order to search for the truth. To demonstrate that

he is serious about this intention, the Dalai Lama admits that traditional Buddhist explanations and theories about the material world are only in its childhood shoes, in comparison with modern science (Dalai Lama, 2005). The Buddhist early atomistic theories should become adapted to modern scientific evidence, no matter how much authority they enjoyed before (Dalai Lama, 2005). This Buddhist theory for example states how matter consists of earth, water, fire and air. Furthermore the cosmology, as described in the Abhidharma, states that the earth is flat and that the sun and the moon are turning around it. Moreover the Tibetan mountain Meru would be the middle point of the universe. According to the Dalai Lama (2005) this stands in sharp contrast with scientific evidence of modern astronomy and should be rejected by Buddhism.

However the Dalai Lama adds, that on the level of human well-being both traditions can still learn a lot from each other. The Buddhist insights in the mind are based on empirical observations (Dalai Lama, 2005) such as in shamatha and vipassana meditation (see part III for an extensive discussion of these). In science, after observing phenomena and generalising some findings into a theory, one tests the theory with experiments. If the experiments aren't in accordance with the theory, this theory has to be reviewed, because the empirical findings are more important than the theory (Dalai Lama, 2005). The Dalai Lama (2005) shows how this is comparable with the empirical research he had learned during his contemplative training. In Buddhism the authority of the texts or theories is less important than insights based on reasoning or *experience* through the contemplative meditation techniques (Dalai Lama, 2005: 22). The Buddha himself advised people not to believe what he said, but to investigate his words and test it with their own experience (Dalai Lama, 2005). So empirical testing has the highest authority in Buddhism, followed by reasoning, followed by what is written in the texts (Dalai Lama, 2005). These are the three methods we discussed in part III: namely hearing, reasoning and experience. According to Buddhism, just like in science, in the search of the truth, the facts are more important than theory (Dalai Lama in Davidson, 2003).

Since the Buddhist concepts about the mind are based on their very own modes of inquiry into the mind, we can call Buddhist knowledge an empirical knowledge (de Wit, 1998). In this way models of the mind and its many aspects and functions are designed, which are in their turn subjected to critical and philosophical analysis and empirical testing by means of meditation and observation (Dalai Lama, 2005). According to Wallace, Buddhism consists of a wide array of testable hypotheses, which have been tested experientially and have been confirmed numerous times over the past 2500 years (Wallace, 2003b). In order to be able to observe the mental processes from moment to moment, one first has to train the mind in one-pointed concentration (Dalai Lama, 2005). Through this empirical process, one gains first-hand knowledge from the working-mechanisms of the mind (Dalai Lama, 2005). Buddhism thus offers an empirical, subjective method for the first-person-observation of the mind (Dalai Lama, 2005).

However the Dalai Lama (2005) does recognize as well that this empirical testing in Buddhism differs from the way things are empirically tested in science. The Dalai Lama (2005) knows very well that science includes a very specific method, which implies measuring, counting and verifying through repeatable experiments. Contemplative research on the other hand develops a fine-tuned attention and uses

this as an instrument for introspection, in which inner experiences are observed (Dalai Lama, 2005).

Empirical research in Buddhism

One of the points we did appreciate in Wallace's theory of intersubjectivity was that he was trying to show that not only science doesn't stay stuck in cognitive frameworks, but also Buddhism has a base in reality for making its truth-claims. Contemplatives probe into the nature of phenomena existing in the internal space of the mind through experience (Wallace, 2005). That is why Buddhism is not merely a philosophical method, since it does have a means to gain access to the object of study, namely the mind. It is not merely about discussing the nature of the mind, without having the means to actually investigate this. But we don't agree with Wallace's arguments of intersubjectivity where he tries to show that science and Buddhism are similar in their empirical research.

The Dalai Lama had many talks with Bohm about the way Buddhism and science are similar or different from each other in the empirical method. The empirical method as conceived of in Buddhism is broader than the one in science. In Buddhism, most important is the empirical method of *direct observation* (Dalai Lama, 2005). In Buddhism, empirical evidence coming forth from meditation, belongs as much to the empirical methods, as evidence coming forth from the other senses (Dalai Lama, 2005). Science could improve the ability of the senses through technology. Buddhism has in contrast to science specialized in the improvement of the mental sense (see part III chapter 2). Mental experience is considered a sixth sense in Buddhism, this is not something mysterious (Dalai Lama, 2005). For example when one looks at a flower, and a thought is coming up, one is perceiving something (the thought about the flower) from the mental domain, this is what is meant by mental perception (Dalai Lama, 2005). The Dalai Lama was somewhat surprised to hear that in Western psychology the concept of mental perception is not known. The mental sense is simply about the perception of mental phenomena such as thoughts, emotions, convictions, intentions, ideas,... (Dalai Lama, 2005). The trained mental sense is able to perceive mental contents in a direct and non-conceptual way (de Wit, 2000). Just like a good telescope is of crucial importance to study the stars, a refined attention, which is stable and vivid, is of crucial importance to do such kind of introspection (Dalai Lama, 2005). A lot of training is involved in the development of a disciplined mind which is able to do this kind of inquiry into the mind (Dalai Lama, 2005).

The Dalai Lama is talking about shamatha meditation, which we discussed extensively in part III. One of the most elementary mental trainings in Buddhism is the training of mindfulness (in the Indo-Tibetan sense of the word) by using the breath as object of meditation (Dalai Lama, 2005). Normally the attention jumps uncontrolled from one thing to another, whichever draws the attention (Dalai Lama, 2005). By training in mindfulness, we become aware of this chaotic way of behaving of the mind and we learn to use it in a more directed way (Dalai Lama, 2005). The more we train in this, the more it becomes self-evident and the lesser effort it asks (Dalai Lama, 2005). One is training the stability and the clarity of the mind (Dalai Lama, 2005). After this, one will be able to consciously put one's attention at a chosen object of observation and keep it there, without the mind being drawn away from it by another stimulus (Dalai Lama, 2005). An experienced practitioner can keep

his attention with a chosen object (for example the mind) for four hours (Dalai Lama, 2005).

However this is not enough, one also has to learn the skill to observe and investigate the object with precision (Dalai Lama, 2005). This is learned in a training for more experienced practitioners: vipassana meditation. Here one is using the trained mind, (the one-pointed concentration which is now being applied effortlessly due to the training in shamatha) in order to investigate and analyse the object of study (for example the mind) (Dalai Lama, 2005). Vipassana is sometimes called the Buddhist mind science, because it is about investigating the nature of the mind, but this investigation is very different from the Western inquiry into the mind (Wallace, 2006a). In Dzogchen or Mahamoudra meditation, one is just observing the mind, the way it is, without any analysis. One notices all kinds of things are coming up, memories, expectations, fears, thoughts about the future, a never ending source of internal chatter (Dalai Lama, 2005). The aim here, is not to feed this chatter by adding thoughts to it, but to just observe it without any interference or any judgement (Dalai Lama, 2005). This is another way of learning more about the working-mechanisms of the mind using a Buddhist first-person methodology (Dalai Lama, 2005).

Objectivity in Buddhist empirical research

Introspection as used in the Buddhist tradition and introspection in the common sense of the word, are totally different things (Dalai Lama, 2005). In Buddhist introspection one keeps a close eye on the dangers of extreme subjectivism, such as fantasies, expectations, *a priori* ideas or preconceptions (Dalai Lama, 2005). In this kind of inquiry, it is strongly emphasized that one must have an impartial, objective attitude. Not allowing oneself to be prejudiced by one's own beliefs and preferences (Dalai Lama, 2003). The research must be guided by the empirical findings themselves (Dalai Lama, 2003). In Buddhist inquiry one must be objective, identifying the extent of our own preconceptions and recognizing how they can get in the way (Dalai Lama, 2003). It is important to discover the actual nature of reality apart from one's own preconceptions and cultural conditioning, and conduct research with this goal in mind (Dalai Lama, 2003). In this way, science and Buddhism are very similar (Dalai Lama, 2003).

Because the subjective experience is easily distracted into fantasies and delusional ideas, Buddhism has developed a meditative instrument in order to perform a structured analysis of the mind (Dalai Lama, 2005). Just like in rigorous scientific research, also in contemplative introspection we have a range of protocols and procedures, which have to be applied (Dalai Lama, 2005). The mind is trained in this rigorous way through shamatha, in order to be able to investigate the inner mental states in a very rigorous way and to have a penetrating access into the observation of the chosen object of investigation (Dalai Lama, 2005). According to the Dalai Lama, we can put this rigorous empirical investigation on equal footing with scientific rigorous empirical research. Even if the Dalai Lama recognizes that the method is totally different from the scientific method, which is specialized in using and refining the third-person methods for observation, while the Buddhist tradition has been specialized in using and refining the first-person method for observation (Dalai Lama, 2005).

In order to understand this particular Buddhist kind of *objectivity* in the inquiry of the mind through meditation, we can use the terms 'Generally Characterized Phenomena' (GCP) and 'Specifically Characterized Phenomena' (SCP) we discussed in a detailed way in chapter 3 of part II. GCP are what is merely imputed by thought, without being an entity whose mode of subsistence is established from its own side (Klein, 1991), while SCP is about phenomena which mode of subsistence is established from its own side. If we have trained our mental sense in such a way, that we are able to perceive SCP, without the added contents of subjectivity (GCP) of the conceptual mind, than we have reached a very objective way of looking at phenomena. SCP can only appear in all their richness of detail to direct, unmediated perception (Klein, 1998), since conceptuality puts a veil over the perceived, which makes we don't see the object under observation (for example the mind) in a clear way, but in a blur way, and are disturbed by interfering thoughts or preconceptions, assumptions, theories, expectations, etc. or in short: subjectivity. The conceptual mind, can also apprehend phenomena but not in all its richness and specific aspects that characterize it, since the conceptual mind narrows down, in order to fixate onto certain kinds of aspects, without taking the whole picture into account.

Outsiders are limited to the echo-chambers of their pre-conceptions?

According to Wallace and many other authors, what is so specific about meditation, is that it is so difficult to communicate about it in conceptual terms. This is because meditation is also consisting of a non-conceptual, non-verbal aspect (Wallace, 2005). Descriptions, which make use of words or concepts, cannot convey the actual nature of the experience to non-contemplatives (Wallace, 2000). It is about conceptually unstructured awareness. The very act of translating direct non-symbolic knowledge or experience into verbalizations about these experiences is fraught with difficulty (Shapiro, 1980). Because the subjective experiences are difficult to put into words, we find a lot of metaphors in the early Buddhist writings, such as light, or a meandering river, to characterize the kind of consciousness in certain meditative states (Dalai Lama, 2005). As we saw in part III, in contemplative discourse, language is more evocative (i.e. to help listeners disengage from their accustomed, conceptually structured modes of experience to refocus attention) than descriptive. The use of language in the contemplative discourse is aimed at undermining the employment of all language, including itself, to break through all conceptually structured experience to a radically unprecedented mode of unmediated awareness (Wallace, 2000).

Not only meditational, but various types of experience may be impossible to communicate to those who have not themselves experienced them (Wallace, 2000). For example the difference of the taste between wine and wine vinegar is about a certain kind of knowledge, but it would be very difficult to adequately describe the difference between these tastes to a person who has tasted none of them (Wallace, 2000). Similarly well-experienced meditators may be able to discuss certain experiences among themselves, while others listening, could literally not make sense of their conversation (Wallace, 2000). Even if a lot of contemplatives state that it is difficult to express this kind of knowledge in words, according to the Sautrantika system the inexpressible is expressible to a significant enough degree to make such expression worthwhile, but in the same time, the limitations of words and thought must be understood (Klein, 1998).

Only experienced contemplatives would know the referents of the words and phrases used in contemplative writing (Wallace, 2005). If scientists want to evaluate one or more contemplative systems, without acquiring any contemplative experiences of their own, they are, according to Wallace (2005) limited to the echo-chambers of their own pre-conceptions. We could understand this as a strategy to exclude scientists or outsiders from the discourse. However Wallace argues that the statements of contemplatives can be tested by intersubjectivity. As Wallace tried to point out, contemplatives do have ways to test the reliability of the statements of another contemplative. If subjective meditational experiences want to claim any validity, then it has to be possible to verify them through repetition by the same practitioner or by any other practitioner, if he uses the same meditation technique (Dalai Lama, 2005). This means that we can verify them with our own experience. In order to do this, we have to follow the rigorous instructions ourselves, without having to believe anything. It is on the basis of this experience that a person can make his conclusions and verify or falsify the statements of another contemplative. The instructions are very clear and short, but practicing them is a big job, which has a real impact on one's life. This is an effort, little scientists would be willing to do, from the sole motivation to falsify the statements of some contemplative.

3.2.2 Fundamental differences between Buddhist and scientific methodologies

Science: mediated, indirect, referential pathways

Wallace (2000) describes the difference between Buddhism and science as follows: while scientists look at the world through the subjective filters of their scientific concepts, contemplatives, on the other hand, seek to disengage from their conceptually structured experiences derived from both sensory and mental perception and to enter a state free of all subjective constructs (Wallace, 2000). Also Cabezon (2003) states that an important difference in method between science and Buddhism is, that science is operating rationally, conceptually and analytically, while Buddhism engages its object experientially, using non-conceptual modes of intuitive understanding that emerges as the result of the practice of meditation. Scientific knowledge, according to de Wit (2003) is always conceptual in nature in the sense of re-presenting something. Through these statements, these authors forget the most characterizing aspect of science, namely that scientists aren't limited to their conceptual frameworks. As we saw with Latour, scientists are able to load reality into the scientific text as locus of debate. On the other hand, these Buddhist authors do try to point out a specific aspect about Buddhist inquiry of the mind.

According to Latour, reality is not represented in the text through language. Latour criticises the idea of language – a gap – followed by reality. In science, Latour states we are confronted with an entirely different way of approaching reality. Reality itself is being loaded into the text by referential pathways, which is an entirely different thing than re-presenting something real in one's head via language. Latour's empirical research of science in action shows us that scientists are not confined to the echo-chambers of their own preconceptions. Through translations, 'referential pathways' and all kinds of mediations, they make reality present in the scientific text. For example when studying a meditating monk, they register the brain waves, transform this on a paper with a bunch of numbers and diagrams. The latter can be transported into the scientific text, and refer through these 'referential pathways' to

the brainwaves of the monk. This is why science fundamentally differs from other narratives. Scientists indeed also use conceptual frameworks which help in constituting a fact, as we pointed out with Latour's concept 'factish', but science does more than that, it doesn't stay limited to those subjective constructs. The objective reality is mixed with their theories into a 'factish'.

By these 'referential pathways', we can trace down the argument of a scientist, up until reality, where he has done his measurements. This is clearly not the case in descriptions about meditational experiences. We cannot trace the words down until inside the mind of the practitioner. While in science one can transport the reality under discussion into the site of controversy, which makes it to a collective activity, this is not the case in meditation. Tracing down the reality of the words in the debate by referential pathways is by definition impossible in the case of the observation of mental experiential phenomena by the mental sense. There one has to go back individually on one's own cushion to go see whether what the other in the debate has said makes any sense. Latour (2005a) also calls religion to be self-verifiable, while science is a collective activity.

A new opposition between Buddhism and science

According to Latour (2005a), science and religion are very different truth-generators. However he refuses to connect science to the objective, observable world and religion to the subjective transcendent world. Latour (2005a) wants to leave the opposition between science, the impersonal, knowable versus religion, the personal and unknowable. Instead he proposes a new opposition between 'mediated referential chains' of science which bring the absent, the far away, closer by on the one hand, and on the other hand the 'search for representations' of the close by, what is present here and now, in religion. Latour (2005a) wants to move away from the former opposition in order to come to this latter opposition between two types of *objectivities*. According to Latour (2005a), the specific about science are its 'referential chains', which are our best source of objectivity and certainty, however, they are artificial, indirect and multilayered. There is no doubt about their truth. Observations in religion have to do with the immediate, the direct, as opposed to 'mediated indirect referential chains'. As Wallace and Cabezon tried to point out, meditation is about being present with one's experience, without the interference of language or conceptual layers.

According to Latour (2005a), science has nothing to do with the visible, the direct, the immediate, quite the opposite: it builds extraordinarily long, complicated, mediated, indirect, sophisticated paths so as to reach the worlds that are invisible because they are too small or too far off. Only via the laboratory, instruments and networks, we can obtain those long 'referential chains'. All these radical mediations are however necessary to produce reliable and accurate information (Latour, 2005a).

Latour (2005a) remarks that religion, in its immediacy cannot always be captured in the procrustean bed of information-transfer, especially emphasised in cognitive psychology. In religion, truth-claims don't always possess a cognitive/informative content. In order to show this, he takes the example of saying "I love you", to one's loved one. This phrase is not to be evaluated on its contents. But according to Latour (2005a) it would be wrong to say that it doesn't contain any truth-value because it doesn't contain an informative/cognitive content. In that case, one would mirror

other kinds of knowledge again to science, which is according to Latour (2005a) not a good thing, since science is especially verbal and talks about informative contents. According to Latour (2005a), in religion this verbal aspect is (as also Wallace states) therefore not so evident and it is difficult to find the right words to represent one's experience.

It is at this point that we can use Ingold's view on learning processes, because Ingold is trying to get loose from this procrustean bed of cognitive psychology by pointing in the direction of other kinds of learning processes, than those of information-transfer. We discussed this extensively in part II and applied Ingold's ideas to Buddhism and meditation in part III. What is typical about meditation is this non-conceptual aspect in the acquisition of knowledge. The knowledge gained, doesn't contain any information in the cognitive sense, but information in the Gibsonian sense, it is about a perceptual, experiential knowledge rather then a verbal knowledge. This is why it is so difficult to find words to express one's experience.

Acquiring knowledge in a direct and unmediated way

Buddhism is about an entirely different way of gaining knowledge, then the scientific methods. Instead of 'mediated pathways', we are talking here about a rather direct way of acquiring knowledge. We have discussed in part III, how during shamatha meditation one stabilizes the attention in such a way, which makes that one can observe very closely what is going on in the mind and have an extremely clear view about what is going on there, without being dragged away by its contents. It is not about re-presenting something for something else. Nothing is standing between what is going on in the mind and us (the attention), like for example the usual conceptual veil or chattering. When the mind is settled in meditative stabilization, this is a state in which words and concepts are suspended (Wallace, 2000). The Yogacara school of Mahayana Buddhism, states that meditation enables us to see mental reality as it is in itself, stripped bare of the usual concepts we superimpose on them (Siderits, s.d.). Buddhism offers various means for experiencing the true nature of reality, in a manner that transcends language and concepts (Wallace, 1996). If we practice shamatha long enough, finally we will be able to observe consciousness devoid of any mental activity, in a very direct and unmediated way (Ricard, 2003). What is going on in the mind is then presented in a very direct and unmediated way (de Wit, 2003). In this mode we are free of any manipulation or interference in the mental field (de Wit, 1998). Nor are we dragged away from our stabile attention and pulled into the mental chattering.

This implies that the rational mind is capable of unmediated knowledge when it reflexively grasps a preceding moment of consciousness immediately after fresh sense perception and before its constructive re-cognition (Loizzo, 2006). Opening up meditation implies staying so sensitized, so receptive that each stimulus seems new, fresh and important (Austin, 1998). This mindful attentiveness implies that the aspirant looks inside with increasing objectivity (Austin, 1998). It is about an unbiased way of observing what is going on in the mind (de Wit, 2003). This state of consciousness, is something which usually escapes us, as it is almost always bottled out by mental images arising from imagination, memory, or perceptions of the external world (Ricard, 2003). Direct perception is like holding a teacup with one's bare hands, while thinking is like holding a teacup with gloves on. The gloves are a metaphor for mental images, concepts and language, coming between the object

and the perceiving consciousness (Dalai Lama, 2005). Buddhists however believe that if one is extensively trained, one is able to think, without the involvement of thoughts and language. Meditation is a way of seeing in a concrete and immediate way (Siderits, s.d.). This possibility is extensively described in the Buddhist theory of knowledge (Dalai Lama, 2005). We discussed this briefly in chapter 3 of part II and chapter 2 and 3 of part III.

Direct perceptual experience is immediate and not limited as conceptual knowledge (Dalai Lama, 2005). Indian epistemologists generally agreed that perception is the foremost of the means of knowledge, because in perception we are more directly in contact, so that our awareness of the fact in question is more vivid (Siderits, s.d.). In this way we observe a large variety of mental events in complex causal interaction (Siderits, s.d.). We will be able to have a kind of pure knowledge, which does not involve discursive thoughts (Ricard, 2003). This inherent faculty of awareness, is also called the luminous aspect of mind, because it can, as we discussed in a detailed way in part III, illuminate or know both itself and outer phenomena (Ricard, 2003). Buddhist traditions claim that conceptually unmediated pure consciousness is indeed a possibility. We are talking here about a mind, which is simultaneously wakeful and devoid of content for consciousness (Wallace, 2000). Padmasambhava (1997) describes the knowledge derived from investigating the mind as a non-conceptual, unmediated conceptually unstructured reality which arises in the mind. These direct and immediate observations are thus difficult to fit in the procrustean bed of information-transfer, as Latour would say.

Perceptual knowledge

Insight or analytical meditation is not based on verbal or conceptual analytical thinking, but on clear perception (de Wit, 1998). A theory about the mind is not playing a part in this *a priori* (de Wit, 2003). Conceptual knowledge is seen as a possible obstacle to perceptual knowledge through intellectual complacency (Reich, 2001). It is about the concrete experience of the mind, without theory, which leads to a very detailed experience/knowledge (de Wit, 2003). A theory of the mind is constructed, based on this experience (de Wit, 2003). According to the contemplative tradition of Padmasambhava (1997), one first seeks experiential insight into the nature of the mind, and only later derives one's theories from that experience, rather then first learning a theory about the mind and using it to enter contemplation. So the task here is to first stabilize the mind in meditative stabilization and then to examine the nature of it (Wallace, 2000). Mindfulness/awareness techniques are designed to lead the mind back from its theories and preoccupations, back from the abstract attitude, to the situation of one's experience itself (Varela *et al.*, 1993). It is about experiencing what one's mind is doing as it does it, to be present with one's mind. This is a method, which is typical for Buddhism.

To learn more about one's positive or negative emotions, it is not enough to just read about the subject and form intellectual opinions on that basis. We are talking here about experiential knowledge, which is of a different nature than conceptual or intellectual knowledge. Knowing something experientially is more difficult than knowing it intellectually (Dalai Lama, 2003). Such knowledge is gained only with sustained diligent effort, which results in a kind of *felt* experience (Dalai Lama, 2003). This is the kind of knowledge gained through meditational practice. The

knowledge generated from this direct experience of what is going on in the mind is a non-conceptual kind of knowledge (de Wit, 2003). This kind of knowledge has also been termed 'perceptual knowledge'. This kind of knowledge is not generated by thinking about, but by the direct perception with the trained mental sense (de Wit, 2003). Perceptual knowledge is about the conscious perception of the mental domain and the interaction of it with other domains of experience (de Wit, 2000).

This comes close to Gibson's conception of knowledge. According to Gibson (1979) perceptual knowledge can be known in a very direct way, unmediated by cognitive schemes or mental models. According to him, only a certain amount of verbal knowledge can be passed on to the next generation. This knowledge should help that generation to open themselves for the environment and pick up the full potential of, what he calls information, in a *non-verbal, perceptual sense*. The former generation is educating the attention of the next generation. They, finally have to discover the information for themselves *in interaction with* the environment, by perception. Meditation is not a passive state, but is an active process in which one constantly interacts with the environment of the mind, fine-tuning one's perceptual system of the attention in relation to the movements in the mind. Perceptual knowledge resulting from this process of information-pick-up is , according to Gibson, not as limited as verbal knowledge. It is about a kind of knowledge which includes a familiarity with ..., a being acquainted with ... (de Wit, 2003). The goal of this kind of inquiry is not merely acquiring knowledge, but to acquire knowledge which transforms the individual (de Wit, 2003). The nature of this particular kind of knowledge is that it affects the person who knows, which has an impact on one's priorities (Wallace, 2006a). This is because it is about experiential knowledge and not just about knowing certain facts in one's head (Wallace, 2006a).

It generates what is called perceptual or experiential knowledge. It is about a knowledge gained by presence, without interference of re-presentations. Indeed, this does not involve in any way, a loading of the world in the discourse. The discourse is by definition not present at the moment of this inquiry. It is only after the inquiry and after the knowledge has been achieved, that debate is held about these experiences. In this case we are talking about words as expressions, which is of a totally different nature than language in science, in which there is a connection with reality through 'referential pathways'. Both Buddhist and scientific methodologies are very specific and very different from each other, generating a different kind of knowledge.

Incompatible paradigms? Uncovering underlying hypotheses

In philosophy, linguistics and communications theory, as well as in psychoanalysis, a view has developed which understands conscious experience as experience which is reflected back upon through language (Nixon, 1999). According to these theories the consciousness typical to human beings, in contrast to animals, would be developed only within the context of crossing the symbolic threshold (Percy, 1975; Deacon, 1997; Lacan 1977; Verhaeghe, 2002). Thus knowledge outside of language is, according to this cognitive view, unthinkable. Lacan (1977) has termed, that which cannot be expressed in a symbolic or imaginary form, as the 'real'. The 'real' is that which, by definition stays foreclosed from any analytic experience, which is an experience of speech. The 'real', thus may only be supposed as an 'algebraic x' (Nixon, 1999). Hereby Lacan acknowledges the 'real' to exist, but according to

Nixon's interpretation of Lacan, it can not lead to any new kind of knowledge. As soon as comprehension is attempted, one would necessarily be drawn into the inescapable web of the hermeneutic enclosure of language (Nixon, 1999).

In contrast to the Buddhist tradition, Western psychological models see conscious comprehension as a cognitive activity. In our culture, truth is something which is expressed by statements about the world, while in Buddhism language is exactly not where one is looking for truth (de Wit, 1998). Also Latour warned us that we wouldn't be able to fit all kinds of knowledge into the procrustean bed of information-transfer. We have seen earlier that in the Buddhist tradition, a conscious, non-verbal mental faculty of distinction or comprehension is considered possible. Nixon remarks that this stands in contrast with the thesis discussed above, that we languaged animals are prisoners of our own device (i.e. language). This leads Nixon (1999) to conclude that if we abandon language, we lose conscious experience. Nixon (1999) remarks rightly that meditation, in contrast with introspection and phenomenological inquiry that does rely on language, takes a totally different route because this observation does not seek a conceptual grasp. He strongly questions the possibility of meditation as the rose that flourishes above this circular morass of linguistic consciousness, which would make it possible to gain knowledge in a direct fashion, beyond language and culture. The idea of non-conceptual, experiential, perceptual knowledge, is indeed completely new to Western philosophy and Western science. But it is not because it is not compatible with our (cognitive) paradigmatic way of thinking that we should term it impossible *a priori*, without giving it any consideration or without putting it to the test.

3.2.3 Overcoming the cognitive paradigm with a radical symmetrical approach

As we discussed extensively in part II, language, the word, has always taken a central place in Western culture. Also introspection was something which happened by words and verbal analysis. However what we find in the Buddhist culture is an introspection of an entirely different nature, without making use of concepts or words. It is an inquiry in the mental area which is characterized by non-conceptuality. Since this has never taken a central place in Western culture, it has neither found a place in cognitive psychology or philosophy, as it has in other cultures and traditions. Also de Wit (2000) points out the fixation of modernity on the conceptual as the only possible way of knowledge. It is now commonly *presumed* that consciousness really boils down to nothing more than information-processing (Wallace, 2000). Varela and Shear (1999b) question the assumption, that nothing consciously can be apprehended apart from a linguistic web. According to them it is one thing to acknowledge the importance of language, but it is an entirely different thing to give it an absolute role.

In contrast with the cognitive paradigm, Gibson's (1979) ecological psychology, leaves room for non-cognitive, non-conceptual, non-verbal, that is, perceptual knowledge. With Ingold we showed how this psychology offers a totally different underlying view on conscious learning. Not in the sense of adding cognitive, verbal, conceptual ideas into one's head, but in the sense of enskillment. We are talking here quite literally of the 'education of the attention', as we described shamatha extensively in part III. Buddhism is a kind of inquiry that makes use of this trained mental perceptual ability, namely the 'faculty of distinction' which is generating a

totally different kind of knowledge, then the conceptual, cognitive, verbal knowledge, we are only familiar with, because of the domination of the cognitive paradigmatic way of thinking. By this Buddhist way of inquiry we can gain a perceptual or experiential kind of knowledge.

My opinion is that Nixon stays stuck in a cognitive paradigmatic way of thinking and that his conclusion is made too early[30]. Whether this Buddhist statement about the possibility of non-conceptual knowledge is true or not, should be an empirical question (Shear, 1999) and should be subjected to rigid scientific empirical inquiry and not just refuted on the basis of a theory (even if it is a very influential theory in Western psychology and social sciences), or for the sole reason that it is a completely new and alien idea to Western philosophy. The fact that this idea of direct perception and knowledge of our inner experiences, doesn't fit with our theories, is not an authoritative ground to refute it. The statement that this idea is not 'scientific', but based on 'religion', is not an argument to refute it. As we saw with Latour this argument of 'science' is an argument often made by scientists in controversies, where facts have not yet been consolidated. Latour, however argues, for more controversies, and more research in science, without asymmetrically excluding certain ideas *a priori* because they find their origin in Buddhist psychology.

If however empirical research proves that this Buddhist statement is false, we should refute it *a posteriori*, but not before it has been subjected to rigorous scientific research. This is what Latour calls a radical symmetrical approach. It is symmetrical because no theories, hypotheses or statements are *a priori* excluded from the scientific debate (as is the case in an asymmetrical approach). But it is radical, because, according to Latour, we are not imprisoned in non-ending discussions, we do have the means to load the objective world into the scientific discourse and through this, we are able to subject these statements to scientific research, in order to come to conclusions, which are answers in the discussion. This answer could be "yes" or "no", but should typically be given *a posteriori* and not *a priori*, as in an asymmetrical approach, a mistake, Nixon is making. Nixon refutes the possibility of perceptual, non-conceptual knowledge too early.

The statement that all conscious experience involves language is questioned by these Buddhist statements, and therefore should again become subjected to scientific controversy, using rigorous scientific research to confirm or falsify this statement, as well as the Buddhist statement of conceptually unstructured consciousness, should not be accepted on grounds of intersubjective confirmation,

[30] Where Nixon (1999) does, however have a point, where he argues that when one speaks of experience, it is influenced by the expectations and projections of a cultural matrix, because *interpretation* is subjected to cultural, psychological and linguistic manifestations. Shamatha meditation is exactly about training to overcome the influence of these conceptual frameworks.

but should be subjected to controversy and scientific rigorous research as a final arbiter. Intersubjectivity alone does not have any authority in this controversy. There is no way that Buddhists can convince scientists of the truth of their statements, because it has been confirmed by other Buddhists, or even other contemplatives from other religious traditions (i.e. Hinduism). The Buddhist method can indeed be replicated by anyone following the same procedures, but no scientist is willing to make that big a change in one's own life in order to falsify the statement of an opponent. They simply answer that Buddhism is a 'religion' and has nothing at all to say in science.

These arguments of intersubjectivity (Buddhists) versus 'religion' (scientists) can only keep on clashing. They offer no solutions. We should, as the Dalai Lama proposed, use *empirical facts* as a common ground in the intercultural dialogue, even if presumptions from theoretical frameworks of Buddhism and science may be completely opposite. We can however, not, on theoretical grounds alone refute the position of the other. Neither can we ignore the statement of the other, because it is not 'scientific', in the sense of in accordance with the scientific paradigm. Both statements are of the nature of assumptions within theoretical frameworks, which, in a radical symmetrical approach, as Latour proposed, need to be subjected to scientific controversy and research, in which *a posteriori*, we can construct 'facts' and refute other statements as 'artefacts'.

3.2.4 Mutual circulation: combining 'circulating reference' and 'perceptual knowledge'

As we showed, knowledge derived from scientific inquiry and knowledge derived from Buddhist inquiry into the mind is of a totally different nature. Buddhist psychology differs on some topics with scientific knowledge, exactly because their methods of inquiry are so different (de Wit, 2000). Earlier we have also discussed that the difference between the scientific and the Buddhist method is also that Buddhists are paying more attention to the first-person methods, which are giving direct access to mental, subjective events, while science has emphasized third-person methodologies, which are able to measure the materialistic aspects of phenomenal experience, namely the brain. We have nuanced this (in part IV), in the sense, that also science uses first-person methodologies, but not in such a rigorous and protocollized way as Buddhists do. But the fundamental difference is that Buddhism directly observes phenomena by bracketing languaged discourse, settling the mind in meditative quiescence, whereas science makes reality present in the discourse itself, by 'mediated referential pathways'.

deCharms (1999) remarks that this way of observing mental phenomena is exactly what contemporary science lacks and which could be complementary to scientific research on the mind and the brain. The Buddhist way of investigating the mind, is according to him very systematic and leads to a very detailed knowledge of the experiential aspects of the mind. Because contemplative and scientific inquiry are so different on this point, they can be very complementary and learn from each other (de Wit, 2003). The methodology of Buddhism, with its spirit of empiricism, if shorn of its religious encumbrances, could be one of our greatest resources as we struggle to develop our scientific understanding of human subjectivity (Harris, 2006). Many scientists realise that Buddhist methodology is very different from science and

unknown to science, therefore wanting to incorporate it into science. We have described this movement in mainstream science extensively in part IV (chapter 4).

One of the difficulties of first-person methodologies is that they can only be verified intersubjectively. Here we risk to be confronted with the same problems as the introspectionists at the dawn of academic psychology: they had no way of overcoming contradictory interpretations. There is no objective yardstick. There is no way of getting independent confirmation (Siderits, s.d.). If the phenomenal descriptions are only possibly validated by so-called phenomenological scientists, through first-person observations, than we are talking about intersubjectivity and not about science. If these observations are however matched with third-person methods, verifiable through 'referential pathways' (i.e. 'circulating reference'), then we have them accompanied by a typically scientific way of working. The first-person methodology adds something extra to it, it doesn't make it less scientific. As Shear and Jevning (1999) noticed rightly, the bedrock of science is the objective study, examining consciousness and its publicly observable underpinnings. This allows the reader or sceptic scientist to trace the observations through 'referential pathways', up until reality itself. This is something we typically don't find in Buddhist inquiry.

So why should we leave this behind in order to use a Buddhist methodology, containing these problems? Buddhism, on the contrary uses no intermediaries in observing mental states such as measuring instruments, or hypotheses, at least in meditative inquiry itself. And that is why we can gain another kind of knowledge, which through science, until now, we didn't have access to. As Shear and Jevning (1999) also point out, the objective approach, while necessary, is also necessarily inadequate to study consciousness. If we wouldn't be able to identify subjective phenomena of consciousness directly, in a subjective way, we would have no way to know which externally observable phenomena are relevant to what subjective phenomena of consciousness. But a purely subjective approach to the study of consciousness, is, according to them, also inadequate. Therefore they propose a combination of so-called objective and subjective approaches. In this way we can bring the unique and valuable aspects of both Buddhism and science together in the investigation of the mind, while both Buddhist and scientific tradition can stay unique. This is what is called 'mutual circulation'. Perceptual knowledge can thus be matched with measurements, which can be presented in the site of controversy, namely the scientific text. This means that if a contemplative is experiencing a state of contentless, non-verbal, pure awareness, this could be matched with fMRI measurements of the mind. The fMRI measurements can be presented in a text through 'circulating reference'. If we can combine the strict level of technical precision of science, with the strict level of subjective introspection of Buddhism, we have a varied method to study consciousness (Dalai Lama, 2005).

3.3 On a cooperation between Buddhism and science in the investigation of the mind and the brain

The Dalai Lama pays a lot of importance to the dialogue between Buddhism and science and was a propelling source for the Mind and Life dialogues. Also with his book 'The World in a Single Atom', he hopes to bring more attention to this dialogue (Dalai Lama, 2005). It is not his intention to use the scientific method in order to prove Buddhism right but the Dalai Lama (2005) hopes that a cooperation between

Buddhism and science can help to gain insight in the working mechanisms of the mind and how these are related to human suffering.

There are several ways in which Buddhism can inspire science. One way is to gather information by looking at the classical texts, such as the Abhidharma and its summary by Buddhaghosa (Goleman, 1972, 1977) and the classical root texts of the Mahamoudra tradition (Brown, 1977). These texts provide phenomenological reports of the experience of advanced meditators. Wallace (2003b) warns us not to focus on texts alone, but to take fully into account the experiences of Buddhist practitioners. Another way to investigate meditation is to have individuals meditate and then to give them the opportunity to describe their meditation experience. This gives some useful information about subjective experiences, though this is filtered through hypotheses generated by different individual experimenters (Shapiro, 1980). At present, as we saw, Buddhism is taking fully part as a partner in the debate with scientists and in the set-up and interpretation of experiments, as well as in writing articles together with scientists in scientific magazines. This collaboration, however still seem to be the first steps taken. But prospects for the future seem optimistic. Finally meditation is proposed as a complementary tool in science to investigate the nature of consciousness. Meditation could lead to a greater awareness on the part of the individual's own subjective experiences, so that there is a greater accuracy of self-reporting in scientific research. On the other hand there could be a partnership on equal footing, in which the first-person perspective of a trained subject can be integrated with the third-person perspective of neuroscience (Thupten Jinpa, s.d.).

Davidson (2003), pronounced the hope of a good cooperation between science and Buddhism. He hopes to use some of the theories from Buddhist psychology as a starting point for scientific research in the long-term effects of meditation, which could influence body and brain and make people happier and healthier (Davidson, 2003). For example which part of the brain is activated with a direct perception, in contrast to a mental conceptual cognition (Davidson, 2003). Buddhism posits a wide array of testable hypotheses and theories concerning the nature of the mind (Wallace, 2003b). For example Buddhism doesn't make a distinction between cognitive and emotional states, something which is done in Western psychology, this could be another interesting area of research (Dalai Lama, 2005). It is not because Buddhism differs in certain theories of the mind, that it should be termed wrong *a priori*. We could see this as an interesting point to learn from one another. A cooperation in the area of cognition and perception between Buddhism and science could also be very interesting (Dalai Lama, 2005). In a further collaboration between Buddhism and psychotherapy one can complement the other, since in psychotherapy, one typically focuses on the content of consciousness, while in Buddhism one aims at a more radical transformation which focuses on the process of consciousness (Cabezon, 2003). When you put the two psychologies together, you get a more complete spectrum of human development (Cabezon, 2003).

There are different important ways in which Buddhist meditation and cognitive science can interact. Meditation could become (and actually already is) an important aspect in the psychotherapeutic healing of people who suffer from psychopathology, or it would be more correct to say, in the training of positive aspects of the mind of people in general. On the other hand, Buddhist psychology could also contribute in the understanding of the working mechanisms of the human mind, by a real dialogue with psychologic researchers. Buddhism, with its own typical kind of research, can be

a dialogue partner in science. For example Buddhist theories about the mind, can be compared with theories in science, and where they differ, an interesting debate can start. At present a lot of psychologists have started the quest for understanding why mindfulness approaches elicit such positive effects, using their own psychological theories. However a dialogue with Buddhist psychology about an explanation for these effects could also show important similarities and differences in both theories, which could open new ways in controversies, new views and new ideas for rigorous scientific research. However up to date, we find little collaboration between scientists of mainstream academic psychology and Buddhists about underlying theories and explanations for the effects of mindfulness approaches.

The aim of the contemplative psychology of de Wit, for example, is to take up the dialogue between spiritual traditions, such as Buddhism and Western psychology (Reich, 2001). The intercultural dialogue between Buddhism and neuroscience, already showed a fruitful collaboration on topics such as the mind sciences (Hayward and Varela, 1992), emotions and health (Goleman, 1997), sleep, dreaming and dying (Varela, 1997), compassion and altruism, destructive emotions (Cabezon, 2003) and many other topics. These initial conversations, have led to new directions in rigorous scientific research, which have contributed to mainstream scientific debate and have been published in mainstream scientific magazines. If neuroscience is able to do this, why shouldn't mainstream psychology be able to do this? Or as Thupten Jinpa (s.d.) has noticed: a basic intellectual etiquette demands that scientists whom study Buddhist meditation in some contexts of health profession, should give a certain respect to the voice of the tradition itself. Finally meditation and its theories of mind, could contribute towards the creation of a comprehensive taxonomy of our mental world (Thupten Jinpa, s.d.). Since Buddhist meditation has yielded various taxonomies of the mental world, as for example described in the Abhidharma literature, it would be interesting if Buddhist meditation wouldn't be merely a new object of investigation for neuroscience (Thupten Jinpa, s.d.). This meeting of Buddhist knowledge as a partner of neuroscience could hold important potentials of developing a scientific understanding of our mental world.

The discovery of Western science by Buddhists

In this work we have especially spoken of the discovery of Buddhism by the West and the position of Buddhism in modern science. In this chapter, however we would like to give a brief overview of the discovery of science by Buddhists and the position of science in Buddhist intellectual life, since both aspects are important in the intercultural dialogue.

The Tibetan philosopher and historian Gendün Chöpel (1903-1951) wrote a passionate oeuvre, around the end of his twelve year travel through Asia, India and Sri Lanka, appealing to his fellow Tibetan thinkers to engage positively with modern science. He was the first Tibetan to have discovered and written about Western science. He wrote that he found powerful empirical confirmation of the fundamental Buddhist insight on the ever fluctuating impermanent nature of things (Jinpa, 2003). Chöpel also referred to the similarities between the scientific neurological understanding of the human nervous system and the human physiology explained in the Vajrayana literature of the highest yoga class (Jinpa, 2003). Chöpel, in the earliest Tibetan text concerning Buddhist intercultural dialogue with science, warns against a dogmatic approach that nothing found in the classical texts may be

undermined. Chöpel believed the acquisition of knowledge of the physical world to be the greatest strength of science, and referred hereby to the empirical evidence as a basis to refute one's views, instead of on the basis of another person's views (Jinpa, 2003).

The second Tibetan to play a crucial role in this encounter between Tibetan Buddhism and modern science, is the present Dalai Lama. From his autobiography (1990), we know that he early on developed a profound fascination for science and technology. We discussed the role of the Dalai Lama in the intercultural dialogue extensively above. The Dalai Lama began speaking in public, especially at major Buddhist monastic colleges, about the need to introduce studies of modern science and Western philosophy into the monastic curriculum. He suggested that this could lead to a mutually enriching dialogue between classical Buddhist philosophy and contemporary thought, including modern science (Jinpa, 2003). The Dalai Lama's repeated encouragement has today led to an intellectual climate among the younger generation of Tibetan scholars, especially within the academic monasteries, where a genuine thirst for basic scientific knowledge is strong today (Jinpa, 2003).

Some Buddhist thinkers treat modern science in exactly the same manner as rival philosophical systems in ancient India, in which they debated and negated everything that could be demonstrated false (Jinpa, 2003). However this group lacks a real understanding of the fundamentals of modern science (Jinpa, 2003). They also tend to conflate scientific theories and metaphysical assumptions (Jinpa, 2003). One of the favourite issues they select for their criticism of scientific thought is what they see as modern science's materialistic theory of mind. Their arguments however are a reproduction of the very arguments Buddhist epistemologists employed more than a millennium ago to refute the Carvaka's materialistic theory of mind (Jinpa, 2003).

Another group of Tibetan thinkers see science as an equal partner (Jinpa, 2003). The Dalai Lama is a principal example of a critical engagement between classical Buddhist thought and modern scientific thought. However this engagement with science seems to be confined to the Gelug pa monastic branch of Tibetan Buddhism. This is not so surprising, because their history is characterized by intellectual study and debate, next to meditation, while in the other traditions, the main emphasise lies on the practice of meditation and conceptualization is more seen as an obstacle to knowledge. As we discussed in chapter 3 of part II, the Gelug pa however see conceptual understanding as a means and not only as an obstacle to gaining knowledge. So it is not so surprising that it are especially students from the Gelug pa order, that are interested in the debate with science. The Gelug pa see both conceptual understanding and direct perceptual knowledge as contributing to the attainment of liberating knowledge, which means that a considerable variety of techniques can be employed (Klein, 1998).

The Dalai Lama has led a campaign to introduce basic science education in Tibetan Buddhist monastic colleges and academic centres and has encouraged Tibetan scholars to engage with science as a way of revitalizing the Tibetan philosophical tradition on the one hand, as well as anticipating on new evolutions in science, in which experienced meditation practitioners will be asked to collaborate in the investigation of the mind. In 2000 a teaching project "science for monks" started in Dharamsala, India. All Tibetan Buddhist traditions were invited. The program offered a first acquaintance with contemporary scientific insights to a select group of young

Tibetan monks (Hogendoorn, 2005). Each year they interrupt their traditional education at the monastery. During one month long, workshops are held to inform the monks about several areas in science, such as physics, biology, maths, evolution, chemistry, genetics and modern cosmology (Hogendoorn, 2005). Every year, the monks are tutored by Western experts (Hogendoorn, 2006). The monks from this program also attended the Mind and Life conferences 10 to 12. The Dalai Lama is convinced that once the full potential of Buddhism will become known more broadly in society, these monks will have a crucial role to play (Hogendoorn, 2005). The Dalai Lama speaks about a neo-Buddhist perspective, which is a new reference frame, inspired by scientific insights as well as Buddhist wisdom (Hogendoorn, 2005).

In the beginning there was some resistance to these changes, since monks were convinced that all the necessary subjects were already taught in the monasteries or that monks had no time to include these subjects as well (Hogendoorn, 2006). Some elder monks were afraid that materialistic Western ideas might infiltrate. Some of the monks have been witness to the genocide, the burning of their books, the killing of nuns and monks by the Chinese, and are willing to do everything to preserve their initial culture. Many abbots discouraged their monks from learning science in the project 'science for monks'. Their rationale was that scientists are so biased by their materialistic preconceptions and so limited in their research methods, that they have nothing to offer regarding the understanding of the nature of the mind. When the tables of such narrow mindedness are turned, it sounds bizarre doesn't it?

Next to that, for the first time in Tibetan history, there is an entire generation of highly educated Tibetans whose primary educational background is not that of the classical monastic system. There are many young Tibetans with a conventional, secular educational background that includes the study of modern science (Jinpa, 2003). However, this hasn't really contributed to facilitating a critical engagement between modern science and classical Tibetan thought, nor has it led to the emergence of any significant scientific literature in Tibetan (Jinpa, 2003).

4 Conclusion: Buddhism: not 'Religion', nor 'Science', but a legitimate partner in the scientific study of the mind

We can combine the strengths of both science and Buddhism, without having to reduce one to the other, as is wrongly done in many arguments combating the asymmetrical division between science and non-scientific knowledge. Whether we argue that science is only merely cultural knowledge, trapped in the prison of language, or whether science can be verified intersubjectively, in the same way as Buddhism and other religions do, or whether we argue Buddhism is not a religion but a science. In all these cases we are ignoring the valuable aspects of Buddhism and science. In the latter case we are also trying to push Buddhism in a Western category (whether it is the category 'religion' or 'science'). I think it is better to keep an open mind to what the Other is like, while keeping one's own presumptions inherently present in and underlying to the concepts 'science' or 'religion' bracketed. This is only possible if we allow the Other in all its differences to have an opinion which is taken into account, and not merely tolerated, as 'other', but insignificant. Both science and Buddhism can have opinions, hypotheses, statements and so on. But in order to consolidate these into a 'factish', a lot of controversy, research, and the collection of all kinds of reinforcements is necessary.

Wallace in his work 'Buddhism and science' (2003b) states that the assertion that Buddhism includes scientific elements by no means overlooks or dismisses the many explicitly religious elements within this tradition. But like science, Buddhism is also concerned with understanding the realms of sensory and mental experience. The mere fact that Buddhism includes elements of religion, is not sufficient enough for singularly categorizing it as 'religion', any more than it can be classified on the whole as 'science' (Thompson, 2005), as done by the Victorians in the 19th century. Wallace points out that Buddhism is to some degree suspended half-way between the two Western prototypes of 'science' and 'religion', without fitting comfortably in either category. To show how Buddhism doesn't fit into our Western categories of 'religion' or 'science', Robert Thurman, for example, states that Buddhism is more science than religion, more a process of education than an adoption of a credo. Buddhism overlaps in many aspects with science: for example they are both interested in the functioning of the mind, and both pay a lot of importance to empiricism. But Buddhism and science also differ fundamentally from each other in their methods of research. To study this discipline, objectively requires the loosening of our grip on familiar conceptual categories and preparing to confront something radically unfamiliar that may challenge our deepest assumptions (Thompson, 2005).

Though it is not because Buddhism differs from science, that it should be categorized as a 'religion', or at the other side of the asymmetrical line: as non-scientific, thus irrational, subjective, or superstitious, only to be studied by the comparative sciences of religion or culture, and not as a legitimate partner in the scientific study of the mind. Buddhism consists of religious, psychological, philosophical, ethical, social aspects (de Wit, 1998). It can thus not be reduced to one of these aspects alone (Batchelor, 1997). To reduce Buddhism to 'religion' or 'science' are two extremes which only highlight some limited aspects of Buddhism. The Buddha once told about a group of blind men who were invited to identify an elephant. One of them took the tail and said it was a robe, the other one took a foot and said it was a pillar, another one felt the side of the elephant and said it was a wall, ... Depending on the aspect of Buddhism we touch, we may call it an ethical system, a philosophy, a

contemplative psychotherapy, a religion, a science, ... Even if all of these are part of Buddhism, we can not reduce Buddhism to one of them, like we cannot reduce an elephant to its tail (Batchelor, 1997).

Wallace (2003b) warns us to be aware in Buddhist studies of the assumptions we bring along in the study. In addition, our engagement with Buddhism could shed a fresh light on our own language and our own categories, for example of 'religion', 'science' and 'philosophy'. In this thesis we have tested in what ways Buddhism did and did not fit into the categories of 'science' and 'religion'. I think we shouldn't orient ourselves on the existing categories 'science' and 'religion', in order to classify Buddhism, since these carry too many underlying theories, hidden hypotheses, *a priori* ideas and implicit meanings. We should see and describe Buddhism as it is.

In my opinion, Buddhism is a form of education as described with the terminology in part III, which includes a conceptual framework, as well as the organization of a learning environment, with learning tools and personal guidance included in the tradition, in which people can discover elements of the tradition, for themselves, which cannot be transferred in a verbal or conceptual form. These learning forms, include the creation of a new learning environment into one's own mind, in which one can investigate in a very private way, one's mind and gain a certain kind of knowledge from this, which is further used in the personal way-finding through life. This specific kind of learning process is aimed at transforming the person. All this is based on a certain insight of the interconnectedness of phenomena, which the person comes to discover in his own way, on his path. This understanding will lead to a more compassionate way of life, since one will realize, how one's own behaviour towards other people, also will impact one's own life, happiness and suffering. In the Buddhist tradition, many people have learnt in this way, in a very private way, but on the other hand, also many Buddhists have debated about their investigations in academies, or monasteries. Some of these experiences have also been written down, for example in the Abhidharma literature. So their experiential knowledge is indeed an interesting body of knowledge, but a very specific kind of knowledge, very different from science.

While Buddhism is commonly classified in the West as a religion, which causes it to end up as an object of study in the comparative religion or cultural studies, causing all the problems of asymmetry as we saw earlier, the Dalai Lama tries to counteract this view by emphasising the neglected part in this view on Buddhism as a 'religion'. The Dalai Lama emphasizes the concern of Buddhism with careful observation and rational analysis as opposed to reliance upon faith alone. As we saw earlier, both Buddhism and science place great importance upon the need for objectivity in the sense of freedom from subjective biases. Science does this under the form of 'referential pathways', and rigorous scientific research, while Buddhism does this by controlling this subjectivity, under the form of conceptual frameworks, which are seen as biasing one's perception, in the meditative investigation of the mind. Whether this last methodology is actually also possible, despite the claims of Buddhists, needs to be put to question and subjected to scientific controversy and inquiry through rigorous scientific research. We cannot reject this possibility without any proof, neither can we accept this possibility without any proof. Some Western people, who meditate, might have confirmed this for themselves, but we need to be able to confirm this in a publicly retraceable way (i.e. 'referential pathways'), without

expecting people to believe it from the word of so-called experts in the area (cf. intersubjectivity).

Thompson, Varela and many other influential scientists consider Buddhism not simply compatible, but mutually informative in common topics such as the study of the mind. They proffer that through back and forth circulation, each approach can reshape the other, leading to new conceptual and practical understandings for both.

However, there still seems to be a taboo on using Buddhist theories in science. As we saw, psychologists in academic psychology still draw only on their own Western theories in order to find an explanation for the working mechanisms of mindfulness-based approaches, rather than opening the dialogue with Buddhists or taking the Buddhist psychological theories to find answers. A very weird thing, since the mindfulness meditations they are studying are based on Buddhism. Neuroscientists, on the other hand, have very well noticed that the Buddhist way of investigating the mind, is a method very different from scientific modes of inquiry. They have noticed this research method to be so rigorous and systematic, that they often compared it to scientific methodologies, worthy of being adapted into scientific research. As we have seen above, however, this methodology might be rigorous and systematic (like also scientific methodologies are), but is very different from what is typically making something to be science: namely, 'referential pathways'.

Next to the fact whether Buddhism is allowed to have a legitimate voice in the scientific debate, at present Buddhists have already entered the debate with scientists, and influenced scientific research. Scientists have been inspired by Buddhist theories in setting up their experiments. And it is not because the Dalai Lama had great influence in those experiments, that they can be simply dismissed as unscientific, since it would not be 'pure' science, but mixed with 'religion'. Those experiments have been conducted in a rigorous way, and anyone (possessing a lab and the necessary instruments) can replicate the experiments. These experiments aren't merely intersubjective in nature, but the reality they refer to, can be traced down, by their 'referential pathways'.

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APPENDIX 1: OPENING UP A NEW UNDERSTANDING OF 'KNOWLEDGE'

Ingold gives us an analysis of how technology and mapmaking are often used as metaphors for knowledge. He shows us that a cognitive interpretation of those are giving us only a limited outlook on knowledge and he tries to broaden our views by viewing those metaphors through the lens of ecological psychology. We will go a little deeper into these metaphors since they are often used as metaphors to explain what meditation is about. The different interpretations of these metaphors – dependent on whether you look at them with the cognitive or the ecological model, could lead to serious misunderstandings and a distorted view of meditation.

Mental maps versus 'wayfinding'

Scientists sometimes refer to their theories as maps, into which can be fitted the data of observation (Ingold, 2000i). These theories-maps furnish an overarching framework of concepts and categories, expressed in language, for the organisation of otherwise fragmentary data, which can in this way intellectually be arranged in a coherent way (Ingold, 2000i). With Ingold, we will show how this view on knowledge is highly influenced by the cognitive paradigm.

Let's start with the map-using stranger making his way in unfamiliar country (Ingold, 2000i). Being here or going there, entails the ability to identify one's current or intended future position with a certain spatial or geographic location defined by particular coordinates on the map. A person who has grown up in that country knows quite well where he is or in what direction to go, without having to consult a map. What does he have that the stranger lacks? According to the cognitive model, the native inhabitant's map is not held in the hand on a paper, but in the head, in his memory in the form of a spatial representation of his usual surroundings, namely a cognitive or mental map. Ecological psychology gives us a very different outlook on what 'tradition' and learning processes are about, than cognitive psychology does. The cognitive map, as part of a received tradition is a structure in the head, prior to the travellers venturing forth in the world (Ingold, 2000f). Even before stepping into his environment, he has already copied it into his mind. His actual movement from place to place, in this view, is a straightforward mechanical matter of executing the prescribed course (Ingold, 2000i).

Ecological psychology gives us a very different outlook on what 'tradition' and learning processes are about. Ingold argues that the native inhabitant is not using a cognitive map. A mental map indicates the locations, like the cartographic map indicates borders separating spaces inside (Ingold, 2005b). Ingold contrasts this with sketch maps, which are generally not surrounded by frames and borders. When we draw a sketch map for a friend, we take a line for our walk, telling the story of the journey as we draw with the purpose of providing directions so that others can follow along the same paths. Ingold (2000i) argues that places shouldn't be seen as fixed locations with boarders around, but as histories and matrixes of movement. The world of our experience is based on movement. It is through this journey that we grow into knowledge of the world (Ingold, 2005b). Proceeding on our way, things fall into and out of sight as new areas open up and others are closed off. This experiential world is *continuously shaped* in the course of our moving about in it, as

a *consequence* of our movement and *not prior to* our movement in it. The world on a map, on the contrary is *static*. The native's perception has been fine-tuned by prior experiences and because of that, he *feels* his way towards his goal, continually adjusting his movements in response to an ongoing perceptual monitoring of his surroundings (Ingold, 2000i).

'Wayfinding' (inspired by ecological psychology) as contrary to map-using (inspired by cognitive psychology) is about a skilled performance inherently present in a continuously changing environment and not separated from this environment, while a cognitive map is by nature detached from the local sites of its practical expression. 'Wayfinding' is a process rather than the replication of a complex structure in the head and it consists in the engagement of the mobile actor-perceiver with his or her environment. The native inhabitant knows as he goes and is not making nor using a map in his head (Ingold, 2000i). Wayfinding is about perceptual knowledge within the environment and not about cognitive knowledge. Cognitive knowledge can be compared with the birds-eye view of the cartographer, in which the world is perceived by a mind that is situated above it, rather than an embodied mind. There is a difference between holding a route-map and figuring out the different destinations we want to go to in a pre-composed plot and 'wayfinding', *where locomotion and perception are coupled in an active line of walking* on a journey which has no obvious beginning or end (Ingold, 2005b). The transported traveller in destination-oriented transport, becomes a passenger, who does not himself move but is rather moved from place to place. The feelings he has, the tiredness of his body, the things he sees, etc. have no impact on his path. The passenger doesn't need to be *perceptually attuned to his environment*. Where Ingold (2005b) compares transport as a network of point-to-point connections, he sees 'wayfinding' as a complex of interwoven lines.

Why is this important for our conceptualisation of 'knowledge'? For Ingold, signs of this original elimination of the experiential aspects of 'wayfinding' can be found everywhere in scientific theories about human beings and knowledge. The idea that the world exists prior to the forms of life that come to occupy it and that each of these life forms is itself separately encoded in a context-free kind of knowledge (Ingold, 1993). Taking maps and disconnecting them from their construction processes as a starting point in the study of human beings is highly problematic (Orye, 2006). Conceptualising the human being as carrying concepts within his head while moving around in the world, like carrying a map in navigating the landscape denies this relational aspect. A relational context of being-in-the-world is turned 'outside in' to become a cognitive attribute of the mind (Ingold, 1996: 117). Ingold's analysis gives us the opportunity to conceptualise 'knowledge' in a different way, not as a cognitive map detached from the world 'out there' in our heads. Ingold (2000i) shows us that '*knowing'*, like the perception of the environment, in general *proceeds along paths of observation and is cultivated by moving along paths* and carried out along paths of travel. This is how knowledge is gained during meditation. In chapter 2 of part III we discuss the different stages of shamatha meditation in which during the interaction with the mind, the practitioner develops a non-conceptual knowledge of the mind.

In the dominant framework of modern thought, knowledge is not integrated by going along, but by building up (Ingold, 2005b). Knowledge then exists of ideas, concepts, categories, mental maps and programs, ... 'Wayfinding' as a metaphor for 'knowing'

is itself a path of movement through the world. Knowing in Smith's understanding is also about a process of personal learning. 'Human knowledge', as Smith calls it, cannot be seen as separate from the person. Knowing in Ingold's view is immanent in the life and consciousness of the knower as it unfolds within his being-in-the-world. 'Knowing' is embodied in the sense that it is inseparable from our bodies (Varela *et al.*, 1993). Representations emerge together as complementary moments of the process of people's life in the world (Ingold, 2000d). Representations are not representing the world in this view, they are not the expressions of what one knows, they are no intermediaries between the mind and the world. Rather they co-exist in the field of experience and are part of the lived-in-world, as well as the body and the senses are part of this world.

Knowing as 'wayfinding' is knowing as a process, rather than a fixed body of knowledge. Traditional knowledge, as knowledge gained from meditation, is part of experience itself. It is present in an engagement in the world, rather than something carried in the head. It is not just symbolical in nature, but demands a perceptual fine-tuning on the physical and social environment. This knowledge cannot be passed on in itself, one has to go through a learning process oneself. Or as Smith would put it: 'human knowledge' cannot be seen apart from the tradition or apart from the person.

'Worldview' as a 'mental map' or 'wayfinding'

In part I we discussed how Smart pleas for a definition of religion as a worldview, in which the human being is conceptualised as a *homo symbolicus*. The concept of 'worldview' is influenced by the metaphor of 'mapreading'. A religion as worldview is then seen as a map that people use to orient themselves and act from. That people have worldviews as mental maps, is considered a human Universal (Sire, 2004). Worldview here is seen as something constructed, representing the world into a different medium such as a paper or a mental space. One is filling his mind with mental representations functioning as a map to navigate the landscape and to assign meaning to a meaningless world. It is like a symbolical intermediary window between the person's eyes and the world. A worldview is then seen as a particular cultural construction of an external reality (Ingold, 2000: p. 95). This is indeed how Smart and Wiebe see the concept 'tradition', as a worldview as a non-relational term, namely as the expressions of the experiences of a person. This conceptualisation is highly problematic because it conceptualizes life and learning by participating in our surroundings as a mind versus world (Orye, 2006). Life and world are torn apart to be somehow artificially reconnected as mind versus world. The cognitivist orientation contrives to disembed individual human beings from the relational matrix of their existence in the world, only to re-embed this world inside their individual heads (Ingold, 1996: p. 112).

Above however we saw how problematic the metaphor of 'mapreading' is and these problems are also underlying the concept 'worldview'. The above analysis of Ingold, however allows another way of viewing this concept. Also Orye (2006) pleas for a radical symmetrical anthropology in which worldview is no longer seen in a relation-blind and inside-the-mind-versus-the-world way. Recognizing worldview as a relational notion will allow us to avoid these problems and to open up a study of religion as practices of *engagement* in a *relational* world (Orye, 2006). In this view a worldview does not exist prior to acting in the world, but rather in acting in the world

itself. Knowledge is not about the enactment of a worldview received from predecessors, but literally the negotiation of a path through the world (Ingold, 2002: p. 51).

'Technology' as 'skill'

The concept 'technology' refers to a corpus of generalised, objective knowledge, which can be practically applied (Ingold, 2000l). Technique is regarded as a property of instrumental objects and not as a property of a skilled human being. The notion technology, however, is derived from the Greek words *tekhné* and *logos. Tekhné* meant the kind of *art* or *skill* that we associate with craftsmanship. *Logos* referred to a framework of principles derived from application of reason (Ingold, 2000k). The shift of the classical concept of *tekhné* to the modern concept of technology has brought about a profound change in the way we think about the relation between human beings and their activity. The image of the craftsman in perceptually involvement with his material has been gradually replaced by an executer who is making an external system to work in a mechanical way, which is completely independent to his talents and perceptual sensitivities (Ingold, 2000g). The creative part of the making has been exported from the context of the physical engagement between the craftsman and his material and has been placed antecedent to this engagement in the form of an intellectual process of design (Ingold, 2000k). The producer is not present in the centre but in the periphery of the productive process (Ingold, 2000n). Skilled making is hereby reduced to technical execution. The performance is no longer influenced by the hand and the eye of the concrete experiencing subject.

According to Ingold (2000k) it is this separation of the constructive work from the context of sensory experience that gives it the quality 'mechanical'. The perceptual aspect of for example the potter who works with his bare hands and feels the clay as he shapes it, is left out. So in the modern notion of 'technology', action is decoupled from perception and is taken out of its context of immediate sensory experience of the practitioners. The workman is treated as an operative, putting into effect a set of mechanical principles that are both embodied in the instruments he uses and indifferent to his own subjective aptitudes and sensibilities (Ingold, 2000l). The quality of attention that inheres in the skilled practitioners conduct is withdrawn from the conduct itself. This has led to an opposition of technicity and intelligence (Ingold, 1999: 439)

This modern notion of 'technology' is often used as a metaphor for the knowledge of a human being. Procedural knowledge, in cognitive psychology, is conceived of as schemes which provide a design, program, plan or script to be applied to an object (Ingold, 2000c). However, when applying the metaphor of 'technology' to learning processes of human beings, it distorts our view on human learning because of the conception of technique as the decoupling of action and perception. The intelligence of the consciousness is no longer immanent in the practical perceptual activity (Ingold, 1999). The metaphor of technology is often used in discussions about meditation. But there is a huge difference between conceptualizing meditation as a 'technology' in the modern sense, or in the pre-modern sense.

Ingold (2000l) is trying to bring this pre-modern signification of what he calls 'technical' knowledge (as opposed to technological) back in the picture. According to him 'technical' knowledge is gained as well as applied in the attentive touching, feeling, handling, looking and listening that is entailed in the very process of creative work, whether mediated by tools or not. There is a *continual sensory attunement of the practitioner's movements* to the inherent rhythmicity of those components of the environment with which he is engaged. Technical operations are conducted not against a *static* background but in a world which is itself in *motion* (Ingold, 1999). A basket for example, is not made through the forcible imposition upon material substance of some pre-existent design, included among the collectivity of a cultural tradition (Ingold, 2000n).

Whether the artisan has an idea in mind of the final form of the artefact he is making, the actual form emerges from the pattern of rhythmic movement, not from the pre-existent idea (Ingold, 1999). The rhythmic repetitions of gesture entailed in the activity are *not* of a *mechanical* kind, but demand the *perceptual attunement* of the individual's motor responses to these multiple external rhythms. Dexterity is grounded in an attentive, perceptual involvement (Ingold, 2000p). They watch and feel as they work. Their movements correspond to surrounding conditions that are never the same. The outcome is the result of a skilled sensuous engagement between the craftsman and his raw material and is not a copy run off mechanically from a pre-established template (Ingold, 2000p). The qualities of care, judgement and dexterity are inherent in the skills (Ingold, 2000n). This has implications for the way skills are learned. It is not through the transmission of formulae that skills are passed from generation to generation, but through practical hands on experience (Ingold, 2000n).

In the cognitive view on learning, the emphasis lies on structures, scripts, mental models in the mind. This implies that they reduce the *action* to a simple mechanical execution. Traditional models of social learning separate the transmission of information from the application of this information in practice. First, a generative schema or programme is established in the novice's mind. The novice forms these internal mental representations of observed behaviour (Ingold, 2000p). In this view we can recognize the modern notion of 'technology' which has withdrawn the intelligent producer (i.e. the mind carrying cognitive representations) from a process of merely mechanical execution by the body. According to Ingold (2000q) however, there is a world of difference between learning as adding more to one's internal representational structure and learning as the development of skill. Between an intelligence capable of generating symbolic representations in advance to their implementation and acquiring a skill (like of weaverbirds making a nest) lies a vast field of operations which are not underwritten by the symbolic imagination (Ingold, 1999).

In this view of 'technical' (as opposed to technological) knowledge as skill, no separate corpus of rules and representations are required to organise the perceptual data or to formulate instructions for action. 'Technical' knowledge, is *subjective, context-dependent, practical* in nature (Ingold, 2000l). Technological knowledge by contrast, is objective, context-independent, knowledge that ..., rather than knowledge how ... (Ingold, 2000l). This kind of knowledge can be passed on to other generations standing apart from the practical context. In the case of 'technical' knowledge, however, technique is embedded in and inseparable from the experience

of subjects. It cannot be passed on to the next generation as a corpus of rules and representations. Rather, one has to establish the conditions that are necessary in the environment of novices to enable them to get the feel of things for themselves, literally to grow into the activities in question (Ingold, 2000l).

Both the person and his knowledge grow within processes of development under the guidance and the support of more experienced practitioners (Ingold, 1999). The contribution of the more experienced practitioner is absolutely crucial (Ingold, 1999). The person learns the skill, not detached, but grounded in his own active, perceptual engagement with his surroundings. The key to imitation lies in the intimate coordination of the movement of the novice's attention to others with his own bodily movement in the world. He gradually gets the feel of things for himself. He learns to fine-tune his own movements so as to achieve the rhythmic fluency of the accomplished practitioner (Ingold, 2000p). It is in this experience that he becomes knowledgeable or skilled (Ingold, 2000g). Skill is a property not of the individual human body as a biophysical entity, a thing-in-itself, but of the total field of relations constituted by the presence of the organism-person, including body and mind in a richly structured environment. This is why the study of skill demands an ecological approach (Ingold, 2000p).

It is no coincidence that in our chapter on technical knowledge as skill, we are again touching the concept 'tradition'. As we saw earlier, both learning, knowledge as a process and tradition are so closely related that we have to study them together and not each one apart. This is also how we think we should study Buddhism. Not as a corpus of texts, not as only a practice of meditation, but as the interrelation between meditation, the knowledge it generates in the individual and the texts.

APPENDIX 2: USING CONCEPTUALITY AS A METHOD TO OVERCOME SUFFERING

It is important to understand that our confused thoughts are part of the mind, instead of believing in our own projections (Traleg Rinpoche, 2004). The mind projects these outwards and we believe it and think it intrudes us, but it is the mind itself that is manifesting these tormenting experiences (Traleg Rinpoche, 2004). Therefore we should cut through our conceptual confusion (Traleg Rinpoche, 2004). We can do this in a non-conceptual way or by meditation, as we saw earlier, but we can also do this in a conceptual way by changing these wrong ideas about reality by correct one's (Komito, 1978). In the conceptual methods it is not about having correct ideas which have been imposed by others, but about what we have discovered by analysing things for ourselves (Komito, 1978). We will try to change this conceptual reified unchangeable view on reality and our identity, which we have build during our history, by seeing the influence of our conceptual frames on how we are presently standing in the world and perceive things in a selective manner (Komito, 1978).

But according to Buddhism, this is not enough, because it is in itself again a conceptual way of doing so (Komito, 1978). Conceptual cognitions still perceive an object through their mental image or a meaning-generality and, they can't distinguish between the mental image and the direct perception of the actual object which is mixed with it, because conceptual cognitions always confuse the appearing object with the actual object of direct perception (Komito, 1978). This is the reason why Buddhism pays less value to conceptuality and memory than to direct perception (deCharms, 1999). The conceptual methods have the purpose of enabling a scholar-practitioner to achieve a non-conceptual realization (Klein, 1998). The conceptual methods are only means to go to a non-conceptual understanding of phenomena. This can be explained by three broad steps in understanding: 1. hearing, 2. thinking, 3. meditating. Understanding on the basis of hearing the teachings, depends on conceptuality, understanding arisen from thinking about the teachings is getting more loose from the words, but still partly depends on names, while understanding arisen from meditation does not depend on conceptuality any more (Lati Rinbochay, 1980). This can be explained by the example of swimming (Lati Rinbochay, 1980). We first need a swimming-belt to hold on to and later we can go into the sea without swimming-belt. The swimming-belt can be compared to the words we initially use in our understanding, but don't need any more in a later phase of understanding.

The Gelug pa written and oral traditions, for example, emphasize a collaboration between scholarship and meditative practices (Klein, 1998). According to the Gelug pa, conceptuality is the base for understanding, even if conceptuality can finally not realise what can be experienced empirically (deCharms, 1999). This scholastic

tradition is founded on the conviction that the inexpressible can be discussed sufficiently well to give rise to factually concordant 'conceptual consciousness' that can then be enriched into direct perception (Klein, 1998). The well-known intellectual endeavour of the Gelug pa branch of Tibetan Buddhism[31], is used both in preparation and during meditation practices and is considered instrumental in attaining particular forms of direct, non-conceptual experience (Klein, 1998). At first we need words, in order to start understanding something. Later the mind will be able to perceive of the object, without the need of an interfering mental image. This is a conceptual mind which has been transformed into a direct perceptive state of mind. This state of mind is called a 'yogic perceiver' (Gen Damcho, 1999). The words or mental images can be compared to the light of a jewel. The light is a metaphor for the concept which appears to the mind. Mostly we see this light (concept) for the jewel (reality) itself. By following the light, however, we can end up with the jewel (deCharms, 1999).

Let's take the example of understanding the subtle impermanence and selflessness of phenomena or 'emptiness' which is considered crucial in the path to liberating knowledge (Klein, 1998). As we explained already shortly above, this is about an understanding of the mind, body and other phenomena, as devoid of a substantially existent self-sufficient self, which consists of a complex network of relationships in dependence of which it can exist. The basic paradigm of conceptual understanding of this leading to a non-conceptual realization, is set out in the Gelug pa presentation of Sautrantika (Klein, 1998). The starting point in this system is precisely the ordinary type of conceptuality and direct perception one now has (Klein, 1998). So this example sets out the potential for transformation and development in the ordinary mind. It is said that the phenomena of impermanence and selflessness of phenomena can fully appear only to direct perception (Klein, 1991). This kind of direct perception is a state of mind, called a 'yogic direct perceiver' (Klein, 1998). This cannot be ascertained by an ordinary person's direct perception. The emptiness associated with a table, for example, cannot appear to direct perception, even though the table itself appears and the table and its emptiness are a single entity (Klein, 1998). This point further emphasizes the limitations of ordinary direct perceivers or ultimate consciousness in the Sautrantika system (Klein, 1998). Therefore the only recourse is to approach them through words and conceptual thought (Klein, 1998). These mental concepts are meant to bring someone to an empirical knowledge of reality (deCharms, 1999). This raises the question of how conceptual thought relates to direct perception. Conceptual thought is not

[31] And this is probably also the reason why it is this branch of Tibetan Buddhism, which is known for its intellectual endeavour and debates, that has found its way to science and is currently engaged in debate with scientists. The Dalai Lama as the head of the Gelug pa order has been a driving force behind this.

transformed of its own force into direct experience, other elements of mental training are involved (Klein, 1998).

Before attaining a direct cognition of subtle impermanence or selflessness, it is necessary to develop a mental image of them (Klein, 1991). Such a mental image is based on analytical understanding and built up through the use of words (Klein, 1991). One's understanding of emptiness after hearing the phrase 'subtle impermanence' for the first time in a teaching, will be different than one's understanding of it after having investigated the logic and descriptions of it (Klein, 1998). This is refined further by understanding that phenomena (like a table, our body or our mind) are produced from causes and are unable to last a second moment by their own power, without these causes their existence depends on to be present. They are produced through the power of causes other than themselves (Klein, 1998). Through such reflection, the image of subtle impermanence becomes increasingly clear and correct (Klein, 1998). A correct image of emptiness is also conceptual (Klein, 1998). But within this conceptuality there are various modes of conceptual thought. For example the division of mental images into term-generalities and meaning-generalities indicates the great range of conceptual experience (Klein, 1998). These gradations of conceptuality are said to approach closer and closer to direct perception (Klein, 1998). As familiarity develops, the sense of its being named 'impermanence' or 'emptiness' or 'selflessness' or 'interdependence' drops away, and one is left with an image of momentary disintegration. At this time the mental chattering which says "oh, this is impermanence, this is changing, this can never stay the same" and so on, has ceased (Klein, 1998). This image, then is still conceptuality, but has been coaxed forth from one's own mind.

'Emptiness', however cannot be realized through conceptuality, nor through ordinary direct perception. One needs an extremely sharp and steady mind to realize this understanding. Therefore one has to cultivate a stable mind, a state of concentred quiescence, through stabilizing meditation (also called shamatha) and a heightened mind, through cultivating insight, a penetrating state of intelligence (also called vipassana) to ripen the mind sufficiently. One then uses this mind to take the image of subtle impermanence as an object. Here the three conditions that are needed for perception to take place are playing an important role (as discussed in chapter 3 part II). Next to an object and a sense, the third condition for perception to take place, is a 'knower', or a consciousness. During these meditation practices of 'shamatha' and 'vipassana' one is cultivating a specific type of 'knower'. The cultivation of this steady and sharp kind of mind is thus important, when one is trying to gain a direct perceptual understanding of emptiness. To perceive impermanence one needs a state of mind as its dominant condition, named a 'yogic direct perceiver'. Its base is a unified concentration of mental quiescence and penetrative insight (Geshe Rabten & Batchelor, 1978; Klein, 1998).

When the mind has attained sufficient stability and clarity, selflessness or emptiness can be perceived directly (Klein, 1998). The practitioner alternates between analytical meditation (vipassana) and stabilizing meditation (shamatha). Finally one reaches a point where, instead of analysis acting as an interference to stabilization, or stabilization weakening analytical understanding, each enhances the other (Klein, 1998). One's mental image of subtle impermanence or emptiness, has become increasingly representative of the actual impermanence or emptiness (Klein, 1998). One than reaches a gradual union of conceptual understanding with increasingly

stabilized periods of concentration (Klein, 1998). When those two states of consciousness analysis and stability are unified into one concentrated stream, they are said to be able to give rise to a true contemplative perception (Geshe Rabten & Batchelor, 1978). As the image becomes clearer and clearer, the conceptual mechanism maintaining it, operates less and less, until it is no longer a case of the mind throwing out an image, but of impermanence itself fully appearing in all its aspects (Klein, 1998). When the image component fades away, one has a 'yogic direct perceiver' that directly cognizes subtle impermanence (Klein, 1998). This union of analytical or insight practice with concentration is called 'special insight' (Klein, 1998). It is not merely a matter of divorcing oneself from conceptuality, but of gaining a certain type of explicit understanding (Klein, 1998). Such realization is inexpressible, just as any direct experience –like plunging into cold water, the taste of an orange, is inexpressible (Klein, 1998). A 'yogic direct perceiver' is by definition non-conceptual and can even be, in the case of a direct cognition of emptiness non-dualistic (Klein, 1998). This consciously held 'yogic direct perception' can help gradually to overcome ignorance (Klein, 1998).