

Studies in Neuroscience, Consciousness and Spirituality

Harald Walach

Secular Spirituality

The Next Step Towards Enlightenment

 Springer

Studies in Neuroscience, Consciousness and Spirituality

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The Next Step Towards Enlightenment

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Chapter 1

Introduction

“Enlightenment” can refer to an important goal on an individual’s spiritual path, or to the collective process of getting rid of narrow-minded, even dangerous and inhuman, dogmas and concepts. The first usage is implied by many Eastern spiritual traditions. “Enlightenment” then signals a state of “true knowledge” or final understanding in which an individual’s mind becomes aligned with a universal type of consciousness or actually becomes this consciousness, even if only for a brief period of time. The second usage refers to the Western tradition of scientific progress. This progress led from a collective mind tied up in dogmatic teachings to a truly free mind that, seemingly, has freed itself from bondage and restrictions. Modern science seems to be the epitome of such an enlightened mind. The thesis of this book is simple and challenging. Science has not gone far enough in that process of enlightenment. Science, and with it our whole Western culture, has to incorporate spirituality in its scope if it is to realize this goal of enlightenment. If that is done, and it can only be done by many individuals actually practicing spirituality, this will also lead to the individual type of enlightenment that this term implies. Thus, although I actually focus on our Western tradition of Enlightenment, the term also implicitly conveys this double meaning.

If we collectively proceed on that trajectory of enlightenment, a non-dogmatic, secular spirituality is the natural, even necessary, consequence for our culture and its rationality. Without such a secular, non-dogmatic spirituality I have little hope, either for our culture or for our rationality, let alone enlightenment. What we have to face, then, is a new, or rather, additional dialectic of enlightenment¹: Either enlightened rationality will succeed in integrating what it thought it had already

¹I use that term in the same sense as Horkheimer and Adorno (2002) used it in their book *Dialectic of Enlightenment*. If the rationality of enlightenment is pursued to the very end, it turns into its opposite. Horkheimer and Adorno have argued that Nazism in Germany is such a dialectical consequence of an “enlightened” rationality gone over the top. I would like to extend it: if we refuse to integrate spirituality into our collective rationality, this very rationality will become irrational.

overcome and left behind, namely religion, or dogmatic religion will hit back in the shape of all kinds of fundamentalism: Islamic, Christian, Scientific, any kind really. The result of such an integration of religion that has gone through enlightenment and has changed as a consequence is what I call secular, non-dogmatic spirituality. By spirituality I mean the experiential core of any religion, as opposed to its doctrinal-dogmatic clothing.

This is roughly what I am trying to explain in this book, and also why I have written it. It is not a pessimistic stance, but rather a diagnosis and a slightly optimistic signpost towards an exit. In so doing I am trespassing on fields that belong to others: to philosophers, ideologists, theologians. But as I do not perceive anything really useful and constructive coming from these quarters, at least as far as my restricted perception goes, I have decided to add such a position myself and start mingling in the game.

I am doing that with a background from various disciplines which is hopefully enough to at least give me sufficient competency not to make serious blunders, allowing enough distance so as to not be seen as having a severe conflict of interest.

My training and practice in clinical psychology has provided me with insights regarding the general outlook of some patients that seem to break down in the face of our modern competitive society and its harshness. My research in the area of complementary and alternative medicine, such as homeopathy, spiritual healing, and mindfulness, as well as in spirituality and health, has revealed two things: On the one hand the desire of modern people to integrate their simple human experiences into a coherent world view, or find spaces in which to have such experiences and share them; on the other hand the huge resistance of many scientific colleagues and intellectuals to allow for such experiences to be discussed. What is worse is that such haughtiness is frequently paired with quite an impertinent ignorance and arrogance regarding such topics. As such prejudices are common currency in probably any academic system in the Western (and likely also Eastern) world, this means that a whole generation of young, gifted and enthusiastic people is being inoculated with the same prejudices before they are sent to do their job in society, thereby extending this very same world view of a narrow minded rationality.

My extensive studies of the middle ages, especially of the scholastic period, i.e. the thirteenth century (Walach 1994, 1996, 2009a, b, 2010, 2012), have generated the insight that we have possibly reached an important junction in history, if not a turning point (Walach and Reich 2005; Walach 2011). Why? During the scholastic period the basic notions that led to our scientific revolution, and as a consequence, to enlightenment, were developed. At that time, the notion of “experience”, which is at the base of our scientific enterprise, did not only mean experience of the outer, material world, but also experience of the inner, subjective world, as in spiritual experience. The latter meaning has been thrown out of the scientific vocabulary, and ever since inner or spiritual experiences have been relegated to the realm of private piety and religious groups and orders, instead of being the subject of public or scientific debate. Looking at the historical processes leading to this division of “experience” into “inner” and “outer” experience and its consequences, I have come to the

conclusion that this separation is problematic, if not dangerous, for the further progress of each individual and for society and the world at large.

My own spiritual practice allows me to speak at least from a fragmentary experiential background. Where my thoughts are still not convincing or my writing too opaque the lack of insight will be all too obvious. But waiting for perfect enlightenment, insight, and knowledge before speaking out is as bad an argument for not doing anything as the lack of faith in the possibility of insight and maturation.

Hence I have decided to mingle with other players, although many objections can be raised against it: my lack of understanding, knowing that I am probably bound to overstep the boundaries of my competency, the likelihood of nasty comments from all quarters. I have done this because I feel it is necessary to at least start the discussion.

By writing this book I am breaking a taboo, taking up a subject publicly that is normally only discussed in private or in specialized circles and on special occasions without violating propriety. At nearly every bus stop, shopping mall, or airport nowadays we can follow our contemporaries' joys and problems about business, family, relationships, and even sex as they talk over their mobile phones in public. Roughly 100 years after Freud and his colleagues have freed sexuality from the cloakroom of society and opened debate- initially scientific, later also public discourse- we still have not made it as far as discussing spirituality individually, let alone in public. This needs to change for, another thesis of this book, spirituality belongs to us humans in the same way as sexuality does, perhaps even more intimately. And similar to sexuality, which is necessary for biological evolution to progress and to allow for progeneration, spirituality is necessary for a psychological cultural evolution on an individual and collective level. We are, of course, free to deny this imperative: as can be done with sexuality. Some individuals who experience a special calling can sublimate their sexuality for the sake of a higher good, creative or athletic expression, religious or philanthropic reasons. That does not preclude that a lot of celibates that follow that path out of dogmatic necessity fail and live a miserable life. But these do not disprove the case. Eliminating spirituality individually and collectively has similar unhealthy consequences to eliminating sexuality, although both are possible. In some individuals eliminating spirituality will be a necessary act of hygiene, as celibacy is for some chosen ones, but in most others it will be just as repressive an act as repressing sexuality in the long run. The attempt to eliminate spirituality on an individual and collective level has less direct, but nonetheless obvious and dangerous consequences similar to the repression of sexuality. As sexuality is much more strongly rooted in our biology and physiology than spirituality, at least as far as we know, we find the problems arising from a repressed sexuality much more intuitively convincing. We know much less about how spirituality is rooted in our biology and physiology, in our social relations. Perhaps our current scientific approach is completely useless for gaining any knowledge about spirituality in the first place. And precisely because we have no scientific understanding about how spirituality could be rooted in our human being, except in a very vague anthropological theological sense, we find such a discussion about spirituality potentially unscientific or problematic.

Hence I will clarify some basic notions, for instance; of what I mean by “scientific”, and will scrutinize some implicit presuppositions that science normally makes. This might help us to understand why I propose that ignoring spirituality and excluding it from the collective awareness of our culture is as dangerous as the repression of sexuality. This will necessitate a somewhat extensive discussion of the mind-body problem and of our scientific concepts of consciousness later during the argument.

Finally I owe you, my readers who have borne with me until now, some information about my own presuppositions and potential limits, as far as I am aware of them. Arguments and rhetorical strategies are only as good as the presuppositions they make. It is rare for authors to explicitly discuss them. By their very nature – Gadamer (1975) has shown this clearly – they can only partially be made explicit. For the larger part they are what is called the historical horizon of an author and are included in a text as such. In order to prevent misunderstandings and to contribute to clarity as much as I can I will outline some of those limits and presuppositions now and in the text, where useful.

I was brought up in the Catholic culture of Bavaria, Germany’s southernmost part, educated by Benedictine monks. No, I neither vote conservative nor am I a traditionalist or fundamentalist. Quite the contrary. I fell out with my traditional culture, as is fitting for a young, thoughtful youth, during puberty and adolescence, and threw most of the concepts of god, devil, heaven, purgatory, and hell the Catholic tradition is so famous for overboard until I had some personal experiential understanding of those concepts. Following curiosity and need in similar measure I took up my own spiritual practice and path, starting to meditate regularly when I was sixteen. My practice was fairly eclectic, guided by some renegade nuns that were later expelled by their order, using a mix of Yoga, and Zen inspired guided imagery meditation. Through that practice I was able to reframe a lot of those traditional concepts which I knew from my traditional upbringing, this time round with my own experiential and not necessarily doctrinal understanding. My later practice brought me into contact with the Jesuit tradition of the spiritual exercises which I have followed for several years and landed me finally in a rather simple tradition of Zen meditation, which I still practice. During and as a result of that practice I came to understand a lot of those doctrinal concepts that I was familiar with as being quite useful, and some even as beautiful. Today I would describe myself as a Catholic who is extremely desolate about the way this tradition is represented by its formal representatives, but also about the way this tradition is perceived by the public, opponents, and not least of all by its own followers, hardly any of whom seem to understand the gist of it. To make it quite clear: I am not a ghost writer of Opus Dei, the Congregation of the Faith, or any other group. I am acting quite on my own, out of my own impulse. On the contrary, if I experience strong affects then it is in the context of people or human dignity being mistreated in the name and for the sake of religion; any religion really, or ideology, or doctrine. In that sense any type of ideological or religious criticism is normally much closer to my heart than any catechism or doctrinal teaching, if that criticism points to the many instances of inhuman practice and crimes perpetrated in the name of Christianity. Nevertheless, historical arguments of defects can never disprove the

ideal that these defects were unable to attain. The fact that many people lie, that scientists make mistakes, and that politicians often deceive their voters, will never disprove the ideal of truth and truthfulness.

If in what follows I tender for a secular, non-dogmatic spirituality, then I wish to do this in as neutral a way as I possibly can from the point of doctrine. The reason for that is simple. I believe that we cannot fight about experiences and their expression, at least in general. Fight only starts at the level of doctrine. We cannot but use language to express our experiences, sometimes and somehow, being cultural beings. Technically speaking, what we do if we express our experiences in language is to bring them into a propositional structure. That is to say we ascribe a quality to something, as in “life is nice”, thereby defining and also limiting it. Some people, poets for instance, can transport the essence of the experience, its fluidity and polyvalent and holistic nature and its paradoxes, by using images or metaphors. The rest of us lack these tongues of angels. We normally use the forms that already exist, the talk of myths, religion, or philosophy, in order to express our experiences or give some meaning to them. As long as we are aware of this, there is no harm in doing it. I myself was happy to have the Christian images which in most cases, though not always, have allowed me to make sense of my own experiences.

We often hear, especially from New Age quarters and disillusioned Christians following some Eastern paths, that it is not possible to use these traditional Western Christian images and concepts (and, incidentally, also Jewish ones; Christianity is initially, after all, nothing but a Jewish sect and uses a lot of this tradition, starting with the Thora and ending with the Psalms). In my experience such a statement is more likely due to a lack of knowledge or imagination than due to the factual restrictions.² But I am perfectly aware of the fact that people coming from another experiential and cultural background, brought up within another political and historical mindset would see that differently. They would likely see my proposal that most experiences can in fact be interpreted, understood, and located within a Christian framework as proof of the lack of depth and comprehensiveness of my own experience. They may be right. In the end it is not a question of doctrine, but of practice. All spiritual traditions, as far as I know, have adopted a pragmatic criterion of truth. This is often forgotten, especially in the Christian context. In the biblical context we can read “By their fruits you shall know them” (not “by their talk”,

²While Buddhism is currently popular among academics, probably because it is inquisitive and akin to science in its methodological outlook, but certainly also because of the championship of the Dalai Lama and scientists associated with him, nothing points towards the direction that Christian or Jewish mythical imagery or theological doctrine receives reinterpretation by scientific thought or is being adapted towards scientific insights. A good example of Buddhist thinking in academia is *Psychology and Buddhism: From Individual to Global Community*. (Docket et al. 2003). A criticism of the implicit Buddhist leanings of psychology in general and transpersonal psychology in particular can be found in *Xenophilia as a cultural trap: Bridging the gap between transpersonal psychology and religious/spiritual traditions* and *Is Buddhism a psychology? Commentary on romanticism in “Mindfulness in Psychology”* (Friedman 2009, 2010). Other attempts at bridging the gap using different types of background theory can be found in Brian Lancaster’s (2000, 2004, 2011) writing.

“by their clothes”, or “by their doctrine”). I am quite conscious of the fact that I am using a background for interpretation that is hardly shared by most of my readers. That is the reason why I will try to differentiate between the experiential core of spirituality and the interpretational background. Whether I succeed in that is another question. I hope it is at least reassuring that I will try. The goal needs to be that fellow human beings from radically different backgrounds, with different religions and coming from different cultures: Jews, Muslims, Christians, Buddhists, Hindi, atheists, agnostics, or other, will be able to talk to each other, live together and thrive together without denying one another the right to live, to use resources, share power, or be human.

Another presupposition of mine is that experience, inner or outer experience alike, is always an experience of *reality*, at least somehow. Put differently: Spiritual experience is experience of reality, not just imagination or hallucination. It is extremely difficult to grasp this from a scientific point of view. I won't be able to solve this epistemological problem once and for all. This is the problem as to how inner experience provides us with knowledge about the world. The solution to that problem depends on what we are willing to see as consciousness and how we think consciousness is related to the material world and the brain.

This leads me to my next presupposition which to some may appear paradoxical or unsound. I start from the assumption that consciousness is more than the result of neurons firing. The latter would, roughly, be the way the scientific mainstream of neuroscientists, philosophers, and biologists would see it. Spiritual experience, at least some of it, questions this scientific dogma.³ It is necessary to explore a different stance if we want to find an epistemological place for spirituality in our scientific edifice. For me personally the notion of complementarity is very helpful at this point: Using the terminology that one of the founding fathers of quantum mechanics, Nils Bohr, introduced, it means that two descriptions which are maximally incompatible are necessary to describe one and the same thing, yet they need to be applied conjointly if that thing – in our case a human being – is to be understood properly (Bohr 1966, 1997).⁴ In this sense we can say that our world consists of two

³ See Walach 2007 (*Mind-Body-Spirituality*) and Van Lommel 2011 (*Endless consciousness: A concept based on scientific studies of near-death-experiences*). A challenging set of data are presented by Eben Alexander (2012) in his book *Proof of Heaven: A Neurosurgeon's Journey into the Afterlife*. Although near-death-experiences are conventionally explained as experiences of an awakening brain, (see Marsh's (2010) *Out-of-Body and Near-Death Experiences: Brain-State Phenomena or Glimpses of Immortality?* for a thorough analysis and argument to that effect), both van Lommel and Alexander make it quite plausible that such disoriented and disjointed experiences of awakening from a state of coma are phenomenologically quite different from the lucid and noetically different states. Apart from this, there are a variety of other spiritual experiences and their phenomenological signatures place some challenge to the mainstream paradigm. I have discussed some of this in my 2007 article quoted above. For other examples see *Spirituality: The legacy of parapsychology* (Walach et al. 2009).

⁴ I will go into greater detail below. Although Bohr's original notion is no longer used as more formally satisfying notions are available, technically speaking, complementarity or the handling of incompatible observables is still at the core of the quantum physical theorizing, as Kim and Mahler (2000) have shown.

aspects from a phenomenological point of view: mental and physical, consciousness and brain. Both aspects are necessary to characterize our world. However, at the base, ontologically speaking, it is likely that there is only one kind of stuff, and the different descriptions, brain and consciousness, matter and mind, pertain to the two different ways this basic stuff presents itself in. This is *one* reality which defies a simplistic one way description. It manifests in both a material and conscious reality *at the same time*. Nevertheless they cannot be reduced to each other. I contend that we need to allow for a phenomenological reality of consciousness without necessarily subscribing to an ontological dualism, which would be quite difficult to align with other aspects of our scientific world view.

A final presupposition, perhaps a very personal and individual one, is an optimistic stance, which I have difficulties getting rid of and, in fact, don't want to. It is similar to a warm mental tinnitus of sorts. The consequence of this is that I have difficulties understanding history other than as development. This also means that I have difficulties viewing theological viewpoints, and indeed religions, other than historically relative and in some sense building on and complementing each other. This is perhaps a dangerously late sprout of Hegelian philosophy of history in a cold, even dangerously cold climate; I know that very well. Nevertheless, I have not heard really good arguments or have not had really bad experiences so far that have convinced me to the contrary. This is the reason why I used the phrase "psychological-cultural evolution". For I do think that new developments can happen; this is the nature of evolution. I would also submit that those new developments, when seen from a large enough perspective and a wide enough vantage point – cum granu salis and sub specie aeternitatis⁵ -, i.e. when we look long enough, wide enough, and far enough, are eventually improvements. A good example is the political union of the North American or European countries that was not forged by force, but by following insight and out of the free will of the sovereign countries that have given up at least some sovereignty in order to support a larger goal (one can of course also use a more pessimist interpretation saying that the motive was profit; that might be true but would not change the outcome). That has never happened before in recorded history.

Implicitly I have also stated what is difficult to reconcile with my position. I will briefly elaborate for clarity's sake: further arguments will follow later. I have difficulties following any form of revamping of idealist positions in a Hegelian or Neo-Hegelian sense, although I have sympathies. Such modern idealist positions, as have been expounded by natural scientists such as Squires (1994a, b) or Goswami (1990, 1994), or a full fledged idealist system such as the one produced by Wilber, which is a rather naïve and ahistorical use of a lot of philosophical ideas, is not really useful from my point of view.⁶ Anyone who has understood our postmodern position – I

⁵With a pinch of salt and under the viewpoint of eternity.

⁶Wilber is a different matter. He certainly has provided very useful compilations of thoughts, mainly from a modernised Vedanta point of view, which in essence is idealist, making spirit the primary entity (some of his works which I find useful include *The Marriage of Sense and Soul: Integrating Science and Religion* (1998) and *Integral Psychology: Consciousness, Spirit,*

mention just a few catch phrases such as the problem of final argument and the linguistic turn, or the incompleteness theorem⁷- and takes it seriously has accepted that there *cannot be* a system which can account for its own veracity and rationality out of its own strength and using its own foundations. It will always have to fall back on other unreflected and uncriticized presuppositions that are taken for granted. It is also not helpful to call on old or spiritual authorities, on a perennial philosophy, or to appeal to general insight and rationality. If that had been sufficient Hegel, Schelling, or indeed Plato or Plotinos would have solved all the problems a long time ago. History, and especially the history of the natural sciences, has taught us otherwise. One of the philosophical problems of any idealist system is the fact that it is difficult to gain a *positive* notion of matter from it, it seems. This is the reason why I feel the need to search around for a different solution.

Psychology, Therapy (2000). This “perennialism” that is based on the assumption of a universal truth that runs through cultures and history is on the one hand appealing, on the other hand rather ahistoric, neglecting the conceptual, historical and cultural problems associated with that view. It does not take into account the relativity of the post-modern situation; see below. Wilber adapts his thought rather quickly to new criticisms that are being raised, and adds a new piece of thought to his system. This reminds me of the Swiss artist Jean Tinguely who has marked a special position in the history of art, whereby he put all sorts of things together creating playful objects such as “world harmony” that can be viewed in a museum specifically dedicated to his work in Bale, Switzerland (see www.tinguely.ch). However, Wilber never really seems to grasp the conundrum of a postmodern position and the difficulty of a revival of idealist thinking. The main difficulty, as I shall point out later, is the mind-body problem that cannot be solved this way. His work seems to sit mainly outside the scientific mainstream discourse for this very reason, and my guess is that it is the lack of historical awareness that creates the basic problem. Solid criticisms, like those by Ferrer (1998, 2000, 2002) seem to be glossed over without noticeable impact.

⁷This postmodern position can be, briefly, described as follows: Around 1930 several thinkers and researchers have, quite independently, discovered that it is not possible to construct any language system that is completely plausible and convincing out of its own foundations. For mathematics, Gödel has shown that any axiomatic theory, such as an algebra or a formal type of logic, needs to recur to another system to give sense to its own final foundational sentences (Devlin 2002). This is the so called “Unabschliessbarkeitstheorem”, the “incompleteness theorem”. In parallel, the philosopher Collingwood (1998, orig. 1940) pointed out that there is no such thing as a philosophical system that can make its own foundations plausible. It will always have to take refuge in presuppositions, Collingwood calls them implicit presuppositions, necessary to make the system work. Most of the time these presuppositions go unnoticed and uncriticized. Other philosophers pointed out that it is impossible to give final reasons and arguments for a system, because these reasons will always have to rely on a certain understanding of language. Finally, even the attempt by Carnap and colleagues to construct a purely formal scientific language that was devoid of opaque notions was doomed to failure, precisely because of this structure: it is always necessary to translate such a language into the normal one, and then the same problems apply (see Hoche (2008) for some very basic arguments and Smith (1994) for a good historical analysis). Wittgenstein (1958, orig. 1953) has shown that we can never step out of the boundaries of our language structures in philosophical argument. Although this principal situation was beginning to become clear by the end of the 1930s, the term “post-modern” was coined by Lyotard (1979) who made clear it meant the end of any “final” philosophical system. Hence, a return to such a system cannot be the remedy for this post-modern situation, even though many might wish it, as this would get rid of the insecurity this situation is coming with. In fact, a lot of our problems such as the many fundamentalisms and other “...isms” are probably due to this very situation.

The argument that it won't be possible to find a final reason for any system out of its own foundations is, of course, also to be applied to my own attempt. This is the reason why my attempt is certainly not to be understood as a system, ideology, or new doctrine. My attempt is more of a recollection. I am not proposing anything that has not been mentioned somehow already by others. What *is* new are not single elements, but the combination of those elements into a new posture with a new rhetorical emphasis.

I am not the solicitor of any single faith, religion, or ideology as far as I can consciously avoid it. This is not a consequence of my own missing standpoint, as I have already mentioned, but of my conviction that a postmodern spirituality that sees itself in the heritage of enlightenment must be content to not argue for a particular doctrine. This does not mean that it will be unethical, uncommitted, undecided or the like. But it means that such a secular, non-dogmatic spirituality will be aware of the relativity of doctrinal clothes and their historical shapes. Every dogma⁸ is relative, historically speaking. The old Christian dogmatic science knew this and therefore re-interpreted the dogma every now and then. "Every now and then" means every few centuries, but nevertheless. More recent calcifications, such as the dogma of papal inerrancy, or ludicrous interpretations of the virginal birth of Mary as physiological-sexual metaphors meant to conserve power are badly deterrent examples of how intellectual self-misunderstanding in conjunction with a lack of spiritual experience can produce rare intellectual absurdities.⁹ I will try to abstain from doctrinal speculations, knowing nevertheless that doctrinal vessels will be necessary at some point. Those vessels, however, need to be newly interpreted, sometimes newly crafted every now and then.

There is no hidden agenda behind what I write, no unknown or secret sect or group. I am writing as a thinking, reasonably well educated, mindful citizen, neither supported nor commissioned by any group. If there is any group I feel some

⁸"dogma" is Greek and means "teaching". It has further developed into a technical term within Catholic theology meaning the official teaching of the Church. This used to be a consensus agreement of all bishops and cardinals, representing the collective wisdom of all the church members. Only very recently, in 1870, did the First Vatican Council decree that the Pope himself can add to this dogma on his own, a stance which was opposed by the German bishops. I use the term here in this meaning, but also to mean that every experience has to be expressed in language eventually, and will thus take on a "dogmatic", i.e. interpretative and thus fixed nature. This is not only true for the Christian dogma, but for any teaching, even though it may be "New Age" and thus purportedly anti-dogmatic. For there is no such thing as experience without interpretation. My emphasis on "non-dogmatic", secular spirituality means that we need to bring the experience itself into focus. The discussion of how to interpret it, is quite another matter.

⁹See footnote above; the doctrine of papal inerrancy is a rather young one and was proclaimed only in 1870. Previously the joint teaching of the Church and the teachers of the tradition was that only a joint group of bishops together with the bishop of Rome as their principal, congregated in meditation and prayer to solve a difficult issue would be inerrant. The interpretation of the ancient teaching of Mary's virgin birth as a sexual-physiological fact is also a rather recent event. Spiritually, it signifies the openness of Mary to the "will of God", meaning the willingness to be of service. Spiritually speaking, virginity is neither a physiological nor a sexual attribute at all, but a spiritual one.

belonging to then it is the group of scientists, which I formally and factually belong to, being a researcher, professor, and academic teacher.

This is another presupposition: I am arguing, working, and writing as a scientist-scholar. Having said that, I must specify it. I am certainly not one of those scientists who follow a certain creed, such as an implicitly materialist worldview or a positivist theory of value-free science. Nevertheless, I feel science is a good platform for public discourse in general.¹⁰ Science is also not free from restrictions and vanity, human weakness and impertinence, regarding individuals as well as groups. But collectively, viewed across centuries and continents, it is the only reasonably peaceful and effective global and joint enterprise of humanity. This is also the reason why I feel spirituality should be discussed within the realm and remit of scientific discourse. Here we have a culture of radical testing and critiquing of nonsensical ideas. From science we also see important impulses arising that are being taken up by other cultural groups and forces such as economy, that then impact on our lives. In European culture, but perhaps also elsewhere in the Western world, the influence of churches and religious groups is waning. The relevant modern mythologies are rather produced by Hollywood and other media, and the raw material for these mythologies comes from the popular culture of the US mainly, and from popular accounts of science. This is why I don't see an alternative to a scientific discourse about spirituality and the topics arising from it. Here many will cry out "treason" and "sacrilege"! "Science, the beast, that will not keep anything sacred"! This is exactly the point: If anything is to remain sacred then this will happen only if the sacred itself is going to be a topic for scientific debate. There is no way around it. On the contrary, we have a lot of problems right now because we are avoiding exactly this debate.

The path I propose is what is called the "naturalization of religion", taking spirituality and religion arising from it as phenomena of the natural world. This is a rather old-fashioned and perhaps even barren way. Thomas Aquinas was the last one who tried it, and to be quite frank, he did not even produce anything that convinced all of his contemporaries. What I am attempting here is much smaller, much simpler by many orders of magnitude. My plan is not to prove that religion, let alone a special fashion and doctrine of it such as Christianity or Buddhism, is compatible with science as such. My point is simply the statement that spirituality is a topic that needs to be discussed in the scientific and public market places and is as much a part of human nature as sex is.

Let me add a few more words regarding my own experiential background. As mentioned previously, my spiritual path has led me from an eclectic type of meditation via the spiritual exercises of Saint Ignatius, to Zen, which is still my practice

¹⁰The scientific meta-theory which I find most convincing is the one put forward by Bruno Latour in his socio-historical analyses (Latour 1999; Latour and Bastide 1986). Apart from that, I think that the cognitive-evolutionary argument of my theory of science teacher Erhard Oeser of Vienna still holds true (Oeser 1987, 1988). However, I do not think that these texts are available in English. I learned a lot from him and subscribe to this evolutionary-biological approach of human knowledge and science in general.

today: a tradition I feel connected with and which I like. A lot of contemporary thinkers, writers and practitioners find Zen, or in fact any Buddhist or Eastern kind of practice, and Christianity are incompatible. I don't agree at all and feel that this is mainly due to misunderstandings nourished by a doctrinal view of religion. Jesuits such as Hugo Enomyia-Lassalle and Niklaus Brantschen, my own teacher, are very good examples to the contrary (Enomiya-Lassalle 1992; Kapleau 1969). Many Japanese Roshis and Western Roshis who have the authorization to initiate their own traditions have pointed to the importance of mutual dialogue and learning from each other. On the other hand a lot of people whom I know and who have embarked on a Buddhist inspired spiritual path have done away with a Christian image of a personal god, as it is supposedly incompatible with Buddhist teachings. This is not necessary, I feel, and is perhaps also due to a doctrinal and dogmatic understanding of spirituality, in this case of a Buddhist leaning. I am not willing to choose either side and I have my reasons for this, some of which I will discuss later on.

To conclude, I express my thanks and gratitude. These are extended to Majella Horan and Jean MacPhail for improving my English, and content-wise to my teachers on the way: to my contemporaries, Ilsetraud Köninger, Rüdiger Funiok, Wolfgang Müller, Pia Gyger, Niklaus Brantschen; and to the departed, brothers Hugh of Balma, Thomas and Eckhart.

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Chapter 2

Clarifications and Presuppositions

Before we go into the argument in detail, it might be useful to clarify some terms and notions. Aristotle stated that a complete definition is the *result* of a process of understanding, not the starting point. Nevertheless it is useful to make my usage of some of the notions that are the result of my own understanding so far transparent. These are the highly laden notions of “experience”, “spirituality” and “spiritual experience”, “religion”, “religious experience”, “religiosity”, “doctrine”, “faith” and “God”.

2.1 Experience

Experience is a holistic type of knowing including cognitive, affective, and motivational aspects. Cognitive aspects of an experience are those of an insight that can be translated into language, into a propositional structure of sentences. An affective component is the emotional tone of an experience. In contrast to a simply rational insight, for instance, that it is clever to stop when the traffic lights flash yellow, an experience contains an affective element as well. If you have ever been in the situation where you tried to cross a junction with the yellow light flashing and narrowly avoided an accident with a motorbike rider who started rapidly while you were about to drive into the junction and you just about avoided a collision by smashing your foot down on the brake, or the like, then the cognitive insight “one has to stop when the yellow lights start flashing if there is still enough distance to the junction” has been transformed into an experience. This is so because the affective-emotional component of the experience – the sudden flash of adrenaline that induces rapid arousal, the accompanying emotion of fear, and perhaps later anger at oneself, along with the quick changes in the hormonal transmission systems of our body and the neuronal excitation pattern in our brain – combined help to engrave the insight

much more deeply (Buchanan and Lovallo 2001).¹ This is extremely useful: a situation which we have experienced personally is much more deeply rooted in our memory if there is some affective-emotional overtone to it. We know all this from the research around memory and learning. We also know that positive emotions are, except for rare circumstances, much more effective as a memory enhancing tool. But every experience also contains a motivational element: anyone who has had an experience similar to the one described and had just about collided with someone else will normally be much more motivated to actually stick to the traffic rules. The driver in our example who knows now from his own experience how it is to not stop at the appropriate light with all its consequences, will in the future be more motivated to do so and will also be more effective in transmitting this experience to his children. Thus, when I say that experience is a holistic type of knowing, then I don't mean a soft wobbly undetermined holism. Rather I am referring to quite well known mechanisms in our memory, in our brain, and in our cognitive system. If more associative systems are being touched by an experience simultaneously, if affective processing and emotional memory are more strongly activated, and implicit networks in the brain that represent more the global feeling of a situation, then the situation will be represented in our memory more strongly and, moreover, will be represented in a particular relationship to ourselves as the one who has had the experience.²

Unlike an emotional arousal, experience always contains a cognitive element, the element of insight or understanding. One can, for instance, use Monteverdi, Schubert, Brahms, or soft pop-music to induce a certain sad mood. As long as this is not connected with a cognitive element, for instance, my own tendency to become sad, the impact a certain kind of music has on human emotions, or Monteverdi's power to redirect pain into art, it is not an experience.

The standard example for an experience is travelling, as Gadamer (1975) has shown in his philosophical hermeneutics. We experience something by literally making our way into unknown territory and exposing ourselves to what we do not already know. The stance necessary for this is radical openness. If we are unwilling to be open and simply transfer our kitchen and living room into another country,

¹If the emotion becomes too stressful, the memory trace is weakened, which seems to be a protecting mechanism, protecting us from traumatic experience; See Het et al. 2005.

²The German psychologist Julius Kuhl has collated a lot of findings and proven experimentally that there are two complementary systems in the brain that generate representations of our inner and outer environment and that can become conscious. One is explicit and propositional, i.e. is represented in sentence-like structures, and it is analytical. The other is rather widely distributed, and connects many different episodes of past memories to a felt and emotional sense of what it is to be "me". This is not necessarily explicit and ordered in logical-analytical or propositional structures, but rather visual-emotional or even visceral. The anatomical substrates are not completely clarified as yet, but in a broad approximation one can say that the self-system that operates more in a holistical-emotional way is correlated with right-hemispheric activity, and the analytical-propositional system is correlated with left-hemispheric activity (always in right handers; for left handers things are different). (Kuhl 1996; Baumann and Kuhl 2002). But there are also other developments that point into that direction (Anderson et al. 2004; Gray 1991; Rydell et al. 2006). A very interesting and competent overview of this research can be found in *The Master and His Emissary: The Divided Brain and the Making of the Western World* (McGilchrist 2009).

watching the same TV soaps and eating the same food, we won't have any relevant new experiences even if we are physically in a foreign country.

If we open ourselves up to new experiences, we are on our way and our horizon grows. This direct experience is completely different from reading a travel guide. Even though we might have read many travel books about India, in which we can read that the traffic is terrible, people are poor but friendly, food and weather are hot, air in cities bad, we will always implicitly use our own points of reference to understand this. These are present in our memory from our past experiences. If we hear that there is a lot of traffic in Mumbai, India, we may think about Rome, or Washington, DC, at rush hour. But we will be unable to really understand what that traffic is really like unless we have been there. Only if we go there and experience it for ourselves will we have that famous effect of recognition, when we match a propositional knowledge with the real experience of a reality. We might then say, "Oh yes, the travel guide said 'traffic unimaginable'. Now I know what it means." Only then a cognitive content or knowledge is filled with our own experience. And only the person who has had such an experience may justly say "Yes, I've been to India". We would not presume to say "Yes, I've been to India. I have read a guide book". If someone said this we would point out the incorrect usage of language. In the same sense we can distinguish knowledge from hearsay, or simply cognitive knowledge from having read or heard something, from experience. Cognitive knowledge is about knowing something, experience about having been there.

Let's use another example to make this clear. Most of us have enjoyed reading romances when we were young (or watching them on TV, for the younger generation). We have thought about love, heard others who had already had more "experience" speak about it. But only when we had fallen in love ourselves did we really understand what the term "falling in love" or "being mad about someone" means.

Let that suffice. We can now see: Experience is, in contrast to a purely rational knowledge, always a holistic type of knowing including affect and emotion, as well as motivation. Only experience transports real knowledge, in contrast to hearsay. The medieval theologian John Duns the Scot has coined the fitting phrase: "expertus infallibiliter novit – he who has had an experience, has flawless knowledge".³

³Johannes Duns Scotus, *Opera Omnia; Editio Nova Juxta Editionem Waddingi Xii Tomos Continentem a Patribus Franciscanis De Observantia Accurate Recognita; Reprint of the Original Edition*, ed. Lucas Wadding (Westmead; origin. Paris: Gregg International; orig. Vivés, 1969; orig. 1891). Vol 9, In librum primum Sententiarum, Dist. IIIa, Quaestio IV.9, p. 176: "De secundis (a) cognoscibilibus, scilicet de cognitis per experientiam, dico, quod licet experientia non habeatur de omnibus singularibus, sed de pluribus, nec quod semper, sed quod pluries, tamen expertus infallibiliter novit quod ita est, ... – Regarding what we can know in the second sense, i.e. what we can know through experience, I say that, even though we cannot have experience about all singular things, but only about many, and also not always, but only most of the time, so it is still true that who has made an experience has flawless knowledge, i.e. he knows that something is so..." To my knowledge this is a singular quote in the history of ideas after Aristotle, who is the exemplar. Duns Scotus produces, in this quaestio (translated "question"; this was the medieval form of a formal disputation in which arguments and counter-arguments were weighed and then a novel and often creative solutions produced), a veritable sketch of a phenomenological science. I am quite sure that Franz Brentano knew this text and started from there with his own program of a psychology based

2.2 Spirituality

Let us understand spirituality as being consciously related to a reality that transcends the ego and its goals. Depending on the kind of experience which supports such a spirituality, this relationship can be more or less all-encompassing and complete, radical or conservative, affecting more or less components in the way we live. Similar to experience, I suggest we only talk about spirituality if it is also holistic and affects knowledge, affect, emotion, motivation, and action similarly. A philosopher who has studied the whole philosophical tradition and has finally understood that there is no individual without connectedness – quite a spiritual-political insight –, but cannot emotionally relate to it let alone translate this insight into appropriate behavior, is not a spiritual person in this terminology. An upcountry farmer, to use a stereotype here, who is implicitly and instinctively linked to the delicate balance between nature, animals, and humans in the mountains, who keeps to the tradition of his family and hence won't increase his stock although it would increase his profit, who rather keeps his old highland breed instead of taking in lowland cattle that ruin the soil and are less effective in using the food, will probably have more understanding of spirituality. Postmodern yuppies who chase enlightenment from Yoga to Zen, from Zen to mindfulness, from mindfulness to shamanism and back again while their kids are waiting for them to come home, or the stern Christian who is emphasizing the rules of his faith and letting his family drift apart rather than compromising, those people would not be spiritual in the sense I am using the word. (You are of course free to employ your own meaning, I am just making mine transparent). Why not? Because they are not operating out of a connectedness with a whole that is larger than their own ego. If we look closely, it is still their own little ego that is foremost and before all – *my* enlightenment, *my* following the rules, *my* salvation, *my* being a good person. It should be clear that spiritual practice or activity can be motivated in subtle ways, sometimes quite obviously, by narcissism and egotism. Therefore, we can never take an action or a behavior for spirituality as such, but have to see it in the context of experience, action, and motivation. In the same vein, selflessness as such is neither a legitimate goal nor a guarantee of spirituality if it is not motivated by a holistic context of spirituality (although it can be highly desirable in general terms). In the Christian context in particular there is a common distortion of humility (Walach 2008). This is a way of always letting others come first, pathologically putting one's own needs last. Often this is a consequence of lacking self-structures, of not taking oneself seriously. This Christian way of self-sacrifice, if not motivated by a spiritual basis, can easily lead to self-destruction and is often the flip side of a coin that has "lack of self esteem" imprinted on it.⁴ This does not negate the fact that sometimes and

on experience. But I have not had time to verify this from biographical information. Be this as it may: This is the historical source for the phenomenological movement in Europe.

⁴Psychoanalytic object theorists, such as Kernberg or Kohut, following Bowlby and others have pointed out how important early attachment experiences and later mirroring of self-activities are

for some people it might be an immensely spiritual path to consciously put oneself last and others first, if this is done from a free and not pathological will, or out of trust in a good guide or teacher.

Being related to a larger reality transcending the ego might be evident in different ways. One person may put his family before motives to advance his career. Another might see giving up children and family in order to follow a calling or a profession as their spiritual way, or the other way round giving up prospects of a career in order to serve children and family. In that sense, women are likely more spiritual just by way of their biology and psychology. (But don't get me wrong: I am not advocating the stereotypical female career of cook, housewife, and cleaner. I am just saying that by biologically serving some purpose that transcends the ego, namely giving birth and caring for children, they are likely closer to spirituality by their biology and psychology.) Others may find their spirituality takes shape in political or ecological activism. Still others may embark on an intensive spiritual quest, and all sorts of mixed ways, of course. But there will always be one commonality according to my working definition: the holistic tendency of their intention beyond the immediate goals of the ego. This might also help to pragmatically discriminate between spiritual and non-spiritual practices. For instance, if someone starts composting because this saves on the cost of waste collection,⁵ this is nice, but not spiritual, as the motivation is not from something that goes beyond motives of the ego. However, if someone starts composting because they firmly believe that something needs to be done to give expression to the interconnectedness they feel with others, they would also do this if there was no gratification or even if it could lead to conflict with the neighbors, then this might be a spiritual act.

All these descriptions of spirituality as being about connectedness with a reality beyond the ego are not meant to suggest that the ego or the self are unimportant in spirituality. Although in a very final sense transcending and annihilating the ego (in order to gain a larger self, sometimes) is part and parcel of most spiritual paths, even the Christian one as we shall see later, this really is not the starting point. In order to be able to translate spirituality effectively, to have spiritual experiences in the first place we need a healthy, stable ego, and often this will be the result of a spiritual path. Only a person that has an experience of self, appreciates and knows this self, only such a person can decide responsively and act effectively and be in fact oriented towards a goal of transcending this very self. The final transcending of self that is often mentioned in spiritual texts and traditions is probably only possible once this self has had its fill. We will return to this topic later.

for children to build up stable structures of self that are again important for mental health. It is important to understand that any spiritual practice presupposes such functioning self-structures. See Kernberg 1985; Kohut 1977.

⁵ as it does in Switzerland, where I was at the time of writing, or in some other countries in Europe.

2.3 Spiritual Experience

I call spiritual experience a direct, unmediated experience of an absolute reality that is beyond the experiencing self. This experience will not necessarily be expressed in previously known terminologies, and often can't be. This definition contains the implicit statement that there is such a thing as direct, unmediated experience of reality, and that this experience does not arise from outside through our senses, but from inside, as an inner experience, but still an experience. We are now touching upon the very difficult question of in what sense it is possible for our consciousness to have an experience of reality, even absolute reality, that does *not* come to us through our senses. I admit that this is the pivotal point in my whole model and we need to explore a potential solution in more detail later on. At this point I am only interested in the terminology. Let's mark the problem for later.

This definition rests on the tradition of mysticism and inner experience which was always part of the Western tradition, at the latest since the beginning of the Christian era but already in the Greek philosophical era. And, of course, all Eastern traditions would have no difficulties subscribing to it, since they have brought this element of inner experience in much earlier. In fact, any system or religious tradition that is not primarily rooted in doctrinal teaching can be integrated here, and hence it is also compatible with Jewish-mystical traditions such as the Kabbalah, I suspect with Muslim traditions such as Sufism, and of course with Buddhist and Hindu spiritual practices. Every single one of these traditions would of course name this "absolute reality" differently. The Abrahamic religions (Judaism, Christianity, Islam) would call it "God", the Christian mystical tradition "Christ". The Buddhist tradition would call it "dharma" or "Buddha nature"; in the Yogic tradition we would find such notions as "Atman" and "Brahman", or divine nature.

I know we are treading on boggy ground here. Is the content of the spiritual experiences in these different traditions similar? Can we compare the experience of the Sufi Ibn Arabi with the one described by Hugh of Balma and Meister Eckhart, or by Teresa of Avila? Is the experience of the absolute made in a Jewish context by Jesus of Nazareth or the Kabbalist Abulafia comparable with the Kensho experiences of a Rinzai Zen-master such as Hakuin's, and again his experience with the one of a Soto master like Dogen? (To complicate matters: even Hakuin, being a Zen Buddhist teacher, scolded and scoffed everybody else, especially Soto monks, because he was quite convinced that most of what they had experienced did not match his own experience. So even within one tradition we have arguments.) Even modern day teachers, such as the Soto master Suzuki-Roshi or Roshi Tetsugen-Glassman: are they talking about the same thing? And is what they are talking about in any way comparable or related to what Ignatius of Loyola experienced? I won't be so presumptuous to suggest I could answer these difficult questions. I will come back to them later. Here is a very preliminary and patchy solution:

Spiritual experience will be, as long as it is an authentic experience and not only a cognitive fabrication, always and by definition experience of reality. For the one who has the experience there is no doubt that it is an experience of reality. What is

difficult to understand, at least from a scientific point of view, is the statement that an inner experience can actually be an experience of reality that is beyond the experiencing ego. We have two possibilities of understanding the situation: Either we suggest there are completely different realities, one for Christians, one for Buddhists, one for Muslims, and so on. Everyone would then experience something completely different in his or her own universe, which can't be translated or mediated to other universes. Or else we start from the basic intuition of unity of reality, which is also the scientific starting point. In that case every experience of reality, in as much as it is authentic, will be an experience of this one reality. Perhaps it might be more or less deep, more or less complete, more or less comprehensive, but always of the same reality.

The difference in formulating these doctrinal codes of religions might depend on two things: One is the cultural-historical dependence of all human cognitive activities and language. Every communication about such an experience would have to use the semantic options which a particular language has to offer at a certain time and within a certain culture. Another way these differences might be explained could be by referring to a different scope or depth of the experiences. Perhaps a mixture of both – a variety in depth of experience and different cultural conditions – comes closest to the true explanation.

To assume a multiplicity of underlying realities does not seem very plausible to me. Postmodern contextualism favors such an explanation.⁶ However, this argument overlooks two important points. First of all, we have a lot of phenomenological material that shows that experiences through ages and cultures are remarkably similar.⁷ William James (1985) pointed this out in his classical study on the “Varieties of Religious Experiences”. Secondly, spiritual experience is in essence not propositional, at least initially. I know many will say that this is not possible. They have simply not had such an experience; else they would not say it. It is a characteristic of all spiritual experiences that they don't come in propositional structures. Hence we cannot express them in a two-valued logic of “true” and “false” as is possible for propositional structures. This is, incidentally, the reason why all spiritual traditions use paradoxes, riddles, images, and deliberately contradictory propositions. Some modern critics of religion have used this as an argument against religions, by pointing out that they are self-contradictory (which is true if only the surface structure is touched), and hence wrong. If we want to express the experience in language because we want to communicate it, then we are forced to use sentence structures that follow the logic, although we instinctively know that this is not true or correct. That is the reason why mystical texts are full of paradoxical sentences. This is true

⁶The standard argument was put forward by S.T. Katz (1978, 1983, 1992). An analogous postmodern critique of Transpersonal Psychology was launched by J.N. Ferrer (2002).

⁷Robert Forman has challenged this relativist argument powerfully by pointing out that there are phenomenological constants of spiritual experiences across ages and cultures. Such an experience is, however, pre-verbal. He calls it “pure conscious event”. I have not seen good arguments against Forman's position and if I am correct then the majority of religious scholars in the American Academy of Religion seems to accept this argument (Forman 1998, 1999).

for the Gospel, especially the sermon of the mount, or for Zen Koans. It is also true for mystical writers such as Eckhart, and can be found a lot in poetry, particularly spiritual poetry.

2.4 Religious Experience

Now, if we make and express our spiritual experience within an existing religious system which is known to us, then we would call it a “religious experience”. Thus I propose that spiritual and religious experiences are identical in nature. The difference is the religious context which makes a spiritual experience a religious one. This might happen through the fact that the experience happens within such a context, or that a religious context is used to interpret and understand a spiritual experience that would otherwise not make much sense. In a religious experience we use existing images, language, meaning to interpret and understand a spiritual experience.

Additionally, I suppose that every religion is based on the spiritual experience of one or, more often, many founding figures. For instance, we can understand the story about the burning bush that describes Moses’ initiation as a prophet as the chiffre of an experience. This, together with a series of other experiences, form the basis of Judaism, which was then further qualified and interpreted by the prophets, whose revelations might also be read as expressions of their own experience.

We can understand the baptism of Jesus reported by all three synoptic gospels⁸ as another initiation experience. This can be gleaned from the language of the text which suggests that only “he” heard the voice and saw something, not those around him. Other experiences, such as the one described in the temptation in the desert, are at the base of what helped the historical rabbi Jeshua to understand his own mission in the first place. All those experiences happened and were interpreted by him, as far as we can tell, in the Jewish context of his days. Only the experience of his followers transformed these into the rise of a new religion. These were the experiences of Christ after the crucifixion, or the experience of Pentecost. All these texts would likely qualify as chiffres for certain experiences rather than historical accounts (although some might be both). Importantly also, the initiation experience that transformed the rabbi Saul into the apostle Paul plays an important role in the forming of the new religion. And thus, Christianity too rises out of a series of powerful initial spiritual experiences.

In Buddhism the experience of enlightenment, which here was an experience of the deep unity of all beings and events, was the seed factor for teaching, practice and

⁸“synoptic gospels” are those gospels that share similar stories and structures. These are the gospels by Mark, Matthew, and Luke. They all use a similar source called “S”. The gospel by John is different. The gospels are called “synoptic” because they can be juxtaposed and looked at in parallel, the Greek term being “synopsis”. I found this interpretation of the baptism of Jesus in *Tantra Vidya. Wissenschaft des Tantra* (Hinze 1983).

later codification (Johnston 1972). Even Islam cannot be understood without the series of profound experiences of the prophet Muhammad.

It thus is at least plausible to say that spiritual experiences lay at the base of formal religions. The Abrahamic religions refer to this situation by the term “word of God”, meaning God himself has revealed himself in those experiences, and the holy texts containing descriptions, accounts or interpretations of these experiences represent this “word of God”.⁹ This is what they are, if we take these texts seriously. This is something quite different from taking them literally. In fact the best way of not taking them seriously is to take them literally. Viewed in that way “the word of God” is the expression of a deep spiritual experience, crystallized into religious language, often interpreted by previously existing images, deepened through them and at the same time altering them, until they become finally codified.

If this is true, then religion is a recursive system, i.e. one that bends back on itself: it allows for spiritual experience, and offers the terminology and images that help interpret it. Sometimes experiences seemed to have been so powerful that they led to an imperative impulse to found a new religious system. This was certainly the case with the Mosaic experience, which almost certainly dates back to monotheistic impulses in Egypt. The same can be said for the Jesuanic experience of the historical Jesus who had and interpreted his experiences within the Jewish tradition of his days and first and foremost deepened the religious impulse of Judaism (Douglas-Klotz 1999). Only the joint experiences of the historical Jesus and his followers and the newly converted apostle Paul led to the founding of a new type of religion. This in turn was altered both in teaching and the experiences it supported by reformers who founded new orders or new strands of the religion. In that sense, the experience that is possible within a religious tradition will always, to some extent, also reshape it.

2.5 Religion

Thus, religion is the vessel for spiritual experience. It is condensed out of a complex mixture of spiritual experience and the cultural background against which this experience takes place, replication of this experience by others, and corresponding narratives. Every human experience needs a form for expressing and capturing it. Poetry is the form used by lovers or sensitive people to convey what they otherwise cannot say. The experience of love, sex, and parenthood has found the form of marriage in most societies to support and help the lovers and their children (this would be a somewhat romantic and benevolent interpretation). The experience of

⁹It is of course extremely silly and in fact quite uneducated to assume that a good old man sat in his office writing and somehow despatching those writings to humankind using a kind of celestial courier service of angels and winged animals. That seems sometimes the way both fundamentalists and atheists likewise understand the meaning. Both are actually not only missing the true meaning of this word, but are also making a laughing stock of themselves.

threat and injustice has led to some forms of policing and institutionalized law in most countries and societies. In the same sense, spiritual experience condenses into religion. Don't mistake me here. I don't mean that in a negative sense, since, I repeat, each experience needs a form for expression and containment. Experience is somehow like the content of a poem, whereas religion is like its form.¹⁰ It does not make sense to separate them: In some way they need each other. A well functioning religion is not only a vessel for experience but ideally also allows for it and makes it easier. It expresses the experience and its major thrust in its images, myths, metaphors and parables. It uses rites and rituals to allow experiential access to the reality it is meant to express.

Now, spiritual experience is always contributing new aspects and will always be interpreted anew depending on changed cultural and historical contexts in which it happens. Hence also the formal side, religion, will have to change accordingly and adapt to these new experiences. New religions, for instance, seem to develop from deep experiences that an existing religious form was unable to contain and to integrate.

The basic experience of the historical Jesus, for instance, could not be integrated sufficiently by the form of Judaism of his time, and the experience of his followers finally let the vessel burst. This is probably one of the reasons why Christianity was established as a new religion and not only as a new sect of Judaism. The historical Jesus very likely had not intended this. None of his original sayings point towards that direction. What seems to suggest in the gospels that he wanted a new religion was clearly inserted at a later time to justify the new developments by the authority of the Christ himself. The Acts of the Apostles are a lively example of the long process of establishing the new faith. The founding fathers of the large Christian monastic orders, Saint Benedict, Saint Bernard, Saint Bruno, Saint Francis, Saint Dominic, Saint Ignatius, or reformers such as Martin Luther were all driven by their own experiences. Sometimes, in the case of the founding fathers of the orders, this experience was integrated. In the case of the Franciscan order it was only by taming Saint Francis and his heritage posthumously. In other cases the experiences were not integrated. Sometimes this led to schisms, sometimes the relevant head of the movements was persecuted and nothing is left of their impulse, as in the case of the Waldensians,¹¹ and sometimes new churches were founded as in the reformed churches.

Most of the time, however, these experiences conveyed impulses that led to changes and renewals, sometimes of the religious form, sometimes of the dogma, sometimes of both. The way in which some churches persevere and hold fast onto

¹⁰We explore this more deeply in our article *The Whole and its Parts: Are Complementarity and Non-locality Intrinsic to Closed Systems?* (von Stillfried and Walach 2006). The basic idea to apply complementarity also to religion can already be found in Bohr 1966.

¹¹This was a medieval movement that emphasised poverty and mutual sharing of property. It was outlawed, because it also threatened current structures of power and domination, and challenged the bishopric in their sole right to interpret the gospel.

forms, doctrines, and teachings is a good example of the inertia of the form in the absence of content and experience.

If religion as a form for experience is increasingly devoid of this experience and retracts onto the safe terrain of rites, rituals, and teachings and thus abandons its main function to contain experience, we see it as increasingly irrelevant, untimely, and hollow. This seems to be the case with the Christian religions in many quarters nowadays.¹² Not everywhere, to be sure, but certainly in Europe and perhaps also other Western countries. As far as I can tell this is a consequence of the fact that the training of future clerics emphasizes doctrine, faith, cognitive skills and teaching, but not experience and individual spirituality. Thereby we forget that dogma and doctrine, ritual and rites are only vessels and expression of experience and have the task of allowing and helping experience. Else the self-destroying process and the implosion of a vessel containing only a vacuum is about to start.

Another point of importance: There is no single spiritual tradition that would not also impart some ethical norms of conduct and behavior, remarkably similar across traditions. This implication of ethics in spirituality is less an external than an internal one. One who has had a spiritual experience knows that he must not do certain things, not because they are forbidden in a general sense and by a higher authority, but because he is damaging himself. A spiritual experience often contains the element of interconnectedness. Hence doing something wrong to somebody else is also damaging oneself. There is no legal code necessary to establish this inner ethics. However, for those who do not have access to the experience, don't know it, or don't understand it, this is less obvious. Therefore an ethical code of conduct is always a kind of by-product of the experience. This can be seen in the simple linguistic fact that the original codex of the Ten Commandments in the Thora is initiated by the sentence¹³: "I am the God that has led you out of Egypt, the house of slavery" – recalling the experience of liberation –, and is followed, if linguistically understood correctly, by the phrase: "You *will* not...", clearly pointing out the behavior appropriately honoring such an experience of liberation.

The more a religion and its followers are alienated from the experiential core, the more ethical codes are focused upon as isolated principles and imperatives. While they may still be valid, the evidence for them is less obvious, certainly for those who

¹²Two similar pieces of evidence support this: Smith and Orlinsky (2004) found in a representative survey of American psychotherapists that only 25 % call themselves spiritual and religious, i.e. they are able to fill religion with their own experience in the sense explained here. A little over 25 % call themselves neither spiritual nor religious, and less than 25 % religious, but not spiritual. The rest call themselves only spiritual. We have found a similar picture in a representative survey of German psychotherapists (Hofmann and Walach 2011). Psychotherapists are a good seismographic measure for cultural trends. They have received a complex scientific and practical training and are dealing with the mental problems of our current society. Although spirituality seems to be more favored by contemporaries than religion, and formal religion is on the retreat, this does not mean that the problems or questions are irrelevant, as data from large world-wide polls as collected in the so called "Religion Monitor" show (Huber 2007). This rather supports the contention made here: The topics that have been part of religion are crucial to people, because spirituality is an innate human condition that won't go away, even if formal religion is retreating.

¹³Ex 20.2.

do not share the same values. Often religions are then only handmaidens to the sheriff and have to guarantee morals, ethical conduct, and propriety. Being religious in such a sense then means not doing certain things and having to do other things. Very often this moral scaffold derived from religion is then used by political authorities who are also highly interested in morally righteous citizens and hate rebellious people. If we combine this amalgam of religious foundation of a certain kind of moral with a particular cultural and social background, then we have the perfect misalliance of religious and political forces that led to the collective suspicion of intellectuals against religion and the social conditions that bred the revolutions and fights of the eighteenth, nineteenth and twentieth centuries.

This should not distract from the simple fact that ethical codes of conduct founded on religion are remarkably similar across all cultures and it is likely they are the result of similar spiritual experiences. For instance, every religion knows the theme of compassion and support for the poor, the ill, the outcast, or love and connectedness with others. Muhammad prohibited the casting out and killing of female babies. The Thora demands love and respect for the neighbor, but also for the foreigner. Jesus even topped this demand by asking his followers to also love their enemies. Shakyamuni Buddha preached limitless compassion with all living and suffering beings. But it would be a misunderstanding if we were to reduce religion and spirituality to ethics and morals. Ethical behavior is a natural result of spiritual experience, and from a certain point onwards it is also a precondition for further spiritual growth. Saint Augustine once broke this down to the simple formula: “*dilige et quod vis fac* – love and do whatever you like”.¹⁴

2.6 Religiosity

This notion should be comparatively easy to understand now. Religiosity is a spirituality that is lived and expressed within an existing religion. It is less about simply fulfilling doctrines and prescriptions as such or for their own sake. It is more about expressing one’s spirituality through them because the religion is quite natural. As far back as the 1960s, the psychologist Allport (1967) distinguished between extrinsic and intrinsic religion. Extrinsic religion refers to behaviors that in the terminology adopted here are motivated by doctrine, because they are the rules, and

¹⁴This is often rendered in the simpler phrase “*ama et fac quod vis*” which has the same meaning, except that the Latin “*diligere*” has the connotation of spiritual-emotional love, while “*amare*” is more strongly linked with the sensual-sexual side of love. The whole phrase is from Augustine’s Commentary to the Letter of Saint John to the Parthians VII.8: “*Sive taceas, dilectione taceas; sive clames, dilectione clames; sive emendes, dilectione emendes; sive parcas, dilectione parcas: Radix sit intus dilectionis, non potest de ista radice nisi bonum existere* – if you are silent, be silent out of love; if you shout, shout out of love; if you chide, do it out of love; if you overlook something, overlook out of love: The root should be inward love, for out of this root only something good can come.” The phrase itself seems to be a later condensation and does not appear verbatim, to my knowledge (Augustinus 1961).

because one hopes to gain something through following those rules, or because some punishment will follow if the rules are broken, with benefits expected from religious behavior. Behind such a type of religiosity we normally find quite an immature and often psychologically damaging image of god. We have enough data and experience by now to know that such a type of external religiosity does more harm than good, for instance regarding physical or mental health.¹⁵ Intrinsic religion refers to a more mature form of religiosity where religious acts and rituals are conducted for their own sake and out of our own impulse. This is identical to what I call religiosity.

2.7 Faith

The term faith is important particularly in the Christian context. It is a translation of the Greek term “pistis”, used in the gospels. As often, the Greek notion has a somewhat different meaning from the language we use (and again the Greek had already lost some of the original Aramaic Jesus and his disciples spoke). The Greek “pistis” has two meanings: “faith”, as in believing what we only know from hearsay, and “trust”, as in trusting somebody. Religion is often associated with faith, and faith is understood as lack of knowledge and hence something that is missing. This interpretation is often supported by the Christian iconography of the “doubting Thomas”.¹⁶ This was the apostle called the “twin”, by the gospels, perhaps because he was very close to Jesus. Thomas was not present, according to the gospel of John, when Jesus appeared for the first time after his resurrection, and hence he had difficulties believing what his colleagues reported when he returned when they said they had seen Jesus alive and well. Thomas wanted proof and demanded to be able to lay his fingers in Jesus’ wounds and see with his own eyes. According to the gospel of John, Jesus actually fulfilled his demands, not, however, without slightly chiding him for lacking in faith. Jesus’ reply that those who cannot see and yet believe are blessed, very likely provided the general background for the appreciation of faith in the absence of proof within the Christian culture. It is quite likely that this story was inserted some time after the first congregations of believers had formed for didactical reasons, to allay the frustration of those followers who did not have a firsthand experience of the risen Christ, as the apostles, and later on Saint Paul in his conversion experience, have had. Such followers needed consolation, and this aspect we find in every religion. We will always have quite a few who will find the whole religion and all concepts plausible but who won’t have their own experiences, or perhaps who even don’t aspire to. A religion needs to be able to accommodate such followers too. And thus they are consoled by the word that those

¹⁵ Good and readable overviews can be found in Emmons and Paloutzian 2003, and in Fontana 2003. The differential influence of these two types of religious coping was worked out by Kenneth Pargament (1997, 2013).

¹⁶ John 20, 24 ff.

who do not see but believe are (equally) blessed. It is quite right, I find, for we need to be conscious of the dangers of a spiritual chauvinism that disregards “normal” people and only respects insiders, enlightened and experienced in-groupers, as we sometimes find in esoteric sects.

But it is important to see that in the parable the risen Christ actually allows Thomas to have his own experience. He plays along and produces the relevant experience for Thomas, thereby, in fact, endorsing the attempt for a real experiential proof. We should not forget this.

Another aspect is worth noticing. The meaning of “pistis” as “trust” is, if I am not mistaken, at least as prominent as the meaning “faith”. The full understanding of the term is a faithful trust in the quiet activity or presence of an absolute reality. In a secular language this could mean trust in the process of life in general, no matter what happens. Such trust is both a precondition and result of a spiritual path at the same time.

This is the type of existential trust, I find, that is meant by the parables and stories of the New Testament, when we find repeatedly, for instance, the formula “your faith has healed thee”, or faith is able to move mountains. This trust, originally of course meaning existential trust in Jesus himself, is reshaped by theological reflection into the term “faith” as we know it today: faith in contents, teachings and doctrines for whose truth we cannot refer to any evidence of our own, but only the trustworthiness of others, of the whole tradition or institution. In the case of the Christian tradition these are mainly the original messengers of the Good News.

Thus the term “pistis”, in the sense of trust, is gradually changed to faith in teaching or in content. The existential notion of a trusting relationship with someone – the historical Jesus called this absolute reality and the relationship he had “Father/Mother”¹⁷ – contains these three elements: (1) trust in this reality that is (2) derived from a direct experience, and is supported by (3) faith in a tradition when one’s own experience is not sufficient. Today we frequently have only the last meaning left, and it is this curtailed notion of faith that is mostly used. That this is insufficient for most people if the other two elements are missing is not very surprising.

This multifaceted notion of faith is very likely also important for other traditions. I know about the Zen tradition, which speaks of three preconditions for spiritual development:

The Great Doubt: if the teaching – the dharma in Buddhist terms – is correct and everything is good in principle, why all the suffering, the pain, and whence the injustice?

The Great Faith: something needs to be true in all those stories about the masters, patriarchs and Buddhas; it is highly unlikely that all experiences and sayings are lies.

¹⁷ See Neill Douglas-Klotz’ (1999) reconstruction of the original Aramaic meaning of Jesus’ notion of “Father” in *The Hidden Gospel. Decoding the Spiritual Message of the Aramaic Jesus*. See also other recent work by Douglas-Klotz (2002, 2003) in which he points out that, since the language used by Jesus and his followers was Aramaic, there was comparative closeness to similar Jewish groups of his time, and the experiential basis for the teaching becomes clear.

The Great Commitment: to be determined in walking the path, solving the riddle, not giving up until it is solved (Kapleau 1969; Hakuin 1994).

Here we have the notion “faith” again, in a rather similar meaning: faith in the trustworthiness and veridicality of the tradition, the received stories, and thus trust in the possibility of actually accessing this reality, somehow. This is like a kind of credit that someone is willing to give to historical persons and mythological accounts in the absence of their own direct experience.

2.8 Doctrine, Dogma¹⁸

My presupposition is that every religion has some core experience of a founder, protagonist or prophetic figure at its base. If this experience is to have any influence and power at all, it has to be communicated somehow and at some point in time. This usually happens in language, unless someone is unwilling to talk and uses only his or her actions to communicate the experience. One could for instance see the healing and miracles that have been told about the historical Jesus exactly in that way. This does not change the situation that somehow people want stories, notions and verbal communications, and hence force our silent prophet who prefers acting over speaking into saying something in the end. This can nicely be seen in the gospels, where the historical Jesus does not talk very much at the beginning, but rather acts. Only as the story unfolds is he challenged by critics and pressed by his followers to explain himself. These explanations initially come in the form of parables and metaphors – the parables about the kingdom of heaven for instance – or else they are quite paradoxical and incomprehensible, such as the Sermon on the Mount, or they are very provocative. This seems to be the same in all traditions: it is actions that testify to the immediate experience of reality, not words.

At some point, however, during the course of a lived tradition or even during the lifetime of someone who has had some experience, the immediacy of the experience fades out, and images, words, rules, and metaphors need to mediate the experience to those who have not had a chance to have it. As time goes by, these need to be translated and explained to others who are further distant in time and culture. These explanations and interpretations then are translated into doctrinal forms that are intended to keep the core of the experience and transmit it through history, without losing the complexity. Only in very rare cases do these doctrinal forms employ linear-propositional structures as in “John’s shirt is blue” or “Mary’s car has broken down”. On the contrary, the language structures employed are multi-valued, i.e. we can understand them in several ways. The classical example is the Christian doctrine

¹⁸“dogma” is a Greek word meaning “teaching, doctrine”. This is how I use the term in this chapter in order to facilitate the understanding as to why dogmatism arises in the pejorative meaning implied by “non-dogmatic spirituality”. I do not mean to ridicule or denigrate “dogma”, I just want to point out the two different meanings, the technical one which I explain in that chapter and the general one that derives from a misunderstanding of this original technical meaning.

that the “Word has become Flesh”, or “Jesus is man and God at the same time, and in the same being”.¹⁹ The function of such a doctrinal statement is not to be “believed”, “learned”, or “confessed” as a catechism, but to function as a container and chiffre for a complex reality that cannot be expressed in a simple linear form.

The same is true, by the way, for a scientific notion. Such a scientific notion rarely describes a simple fact. More often it is shorthand for a very complex mesh of relationships of facts, observations, experimental findings and actions that are defined by a particular theory, and their interpretations (Collins and Pinch 1993). In the case of physics, even a different language is used, namely that of advanced mathematics. For instance, if we use the notion “graviton” we are referring to an exchange particle for the gravitational force. This particle is completely virtual, i.e. not present in any material sense. Moreover, it has not even been found yet and scientifically proven as a fact. It exists within a network of a complex theory that predicts its existence and is necessary within that theory and for all other notions within it to function. Therefore we “believe” that gravitons exist. But this “belief” denotes an extremely complex array of facts and findings, theoretical structures and reasonable expectations, potential experimental tests, our normal everyday experience of gravity and our general belief in the applicability of reason. Whoever imagines a tiny little golf ball when he or she hears the word “graviton” is simply wrong.

We have to treat notions coming from religious doctrine and dogma similarly. They sum up hundreds of years of interpretation, discussion, theoretical-philosophical reflection and debate about age old experiences into statements of high rational density. They are at least as difficult to understand as the real notion of “graviton” or “quark”. The less one is aware of the whole history of the discussion, the less one can understand the term from one’s own experience, the less sense such a notion will make. Now, if some teachers of the dogma – and for some reason there are rather too many of that sort – misunderstand the sentences of such dogmatic formulations as propositional descriptions of reality then we get a serious mix-up of language and obvious silliness which a rational, educated person cannot subscribe to. Such an example is the often cited virgin birth of Jesus, when some people say it refers to a physical birth in which the physical hymen was untouched (and which did not follow previous sexual intercourse). Here dogma and doctrine that refers to a very complex reality is misunderstood quite severely as a propositional structure. Such a verbal interpretation overlooks completely the function of such dogmatic sentences and formulae of condensing and transporting experience.

¹⁹This is the classical dogmatic formula that the Council of Chalcedon has arrived at in the year 451. K.H. Reich used it as an example of what he first called “complementarist thinking” and later on “relational-contextual reasoning”. Thereby he is referring to a mental operation that is beyond formal analytical reasoning in the sense of Jean Piaget, and for which he has provided evidence in the development of young adults. Some, but not all of them, arrive at such mental concepts that are able to integrate conflict and seemingly opposite and contradictory viewpoints. He assumes that such a form of thinking is necessary to solve complex problems and he sees dogmatic formulations like the one of Chalcedon as examples of such a type of thinking. Thereby, a complex spiritual reality is expressed. See Reich 1990a, b, 2003.

Take a more recent example to make it more obvious. We often say things in a metaphorical manner, for instance when we say, colloquially, “He has worked his butt off”. We mean “He has worked extremely hard”. If someone came and called the ambulance because he assumed someone has injured themselves working, losing their buttocks for some reason, we would find that quite silly. Now assume, with temporal distance in a few hundred years people don’t understand what this idiom means. And someone comes along saying in those days people were so devoted to work that they actually physically mutilated themselves losing their buttocks while working, it would simply be wrong (That some people ruin themselves physically while working and could be described by that idiom is quite another matter; certainly, while they may ruin themselves physically, it won’t be their buttocks that are ruined.).

Similarly, taking doctrinal or dogmatic formulations literally is quite silly. Now, if personal experience is lacking, or if collectively the experiential access has vanished, we feel unable to understand and fill such doctrinal statements. Then doctrine seems like an empty shell, and anybody suggesting we should take those formulations at verbal face value must be joking.

Dogma needs fresh re-interpretations every now and then. This is so because the metaphors and images used by dogmatic formulations are not historically and culturally stable. What was understandable 1,500 years ago is not necessarily understandable today. Translating experience into language means transporting the invariant core of spiritual experience into the realm of time, history, culture, and thereby relative truths. Therefore there won’t be any chance that any religious-dogmatic or doctrinal formulation, no matter of which religion and how clever, will ever capture the full depth of spiritual experience.

One of the major problems of established religions in the West, but likely also in the East, seems to be that they keep retreating into a castle of dogmatic formulations, fleeing the armies of postmodern and supposedly evil free thinking and liberal debate. Within their castles they can then celebrate together with those who are content with doctrine, negating their thirst for experience. Such a strategy leads, of course, to many intellectuals and academics turning away from organized forms of religions, and many cultivate their private religion or spirituality in their own back garden.

2.9 God

“God is dead”, Nietzsche pronounced, and thereby he coined one of the most potent slogans of modern times. This sentence presupposes that there is such an entity which we can name “god” and which has, as one of his possible states or properties, the state of being dead or being in a state of dying. This dying then actually happened, and this is the reason why we are entitled to ascribe to this entity “god” the property of “being dead”. This would be, at least approximately, an analytical philosophical account of this sentence. I have chosen this example quite deliberately to

demonstrate a couple of conundrums of a doctrinal way of speaking about spiritual realities and the potential scope for misunderstandings here. Nietzsche could only say this sentence and suppose his listeners or readers would understand it because he had himself a certain understanding and notion of the term “god” and could assume others shared this. The sentence is only meaningful if the notion “god” is understood as a doctrinal notion not doing justice at all to what has been a shorthand for the absolute reality through thousands of years of philosophical and theological reflection. If we now reduce the original meaning of the notion and curtail it in a doctrinal fashion, then the notion “god” becomes a proxy for a potentially punishing, unremitting, and enslaving entity. Moreover, this entity is of a rather fragile nature and purely hypothetical, as only stated by a doctrinal discourse demanding our blind faith. The original notion “god” is a notion that condenses a certain understanding of reality, absolute reality in the philosophical tradition. If that is reduced to an empty shell and taken as a doctrinal formula, then this notion is by necessity – and thank “God” – deconstructed and debunked as an empty threat and a tiger with no teeth.

The philosophical and theological tradition was always quite clear that the notion “god” needs translation. Even Saint Paul the apostle used the notion “the unknown god” as an empty vessel to talk to the Athenians about his own experience, as we are told in the Acts of the Apostles. However, he was not very successful, as we know. The Athenian intellectuals were quite aware that this notion was relatively generic and empty, and did not fancy believing someone’s story in the absence of proof, let alone something that sounded as absurd as Saint Paul’s story. During the centuries following the beginning of the Christian era, the notion “god” was re-interpreted ever anew. It was the achievement of the so called church fathers of the first centuries CE, with their speculative and philosophical strength, to blend the philosophical notion of God that had been handed down from the Greek philosophers with the Jesuanic-Jewish one of the Christian experience.

The notion itself, however, was condensed experience. Only the separation of experience from dogma, which seems to have reached a new peak in our days, made it possible, even necessary, to deconstruct the notion, as Nietzsche did, and to show how such a petrified empty cask of a notion of God has an untoward potential to enslave and discourage people, or to be used as a means to politically manipulate societies.

In order to prevent this, the Jewish and Muslim traditions know the many names of God, each of which points to a certain perspective only and means something different. The same function, namely to prevent crystallisation and petrification of the notion, is served by the commandment to not form an image of God. It seems to me that this is also the reason that the Buddhist tradition does not speak of any God at all and does not qualify the Final Reality. All those who have understood the potential for misunderstandings and combined their own inner experience of that reality with philosophical understanding used notions that were intended to prevent such a gridlock of meaning. Nicolaus Cusanus, the fifteenth century polymath and

cardinal, for instance, did this when he used an old adage referring to God with the metaphor of an infinite globe whose centre is everywhere and whose circumference is nowhere.²⁰ Meister Eckhart did this when he said – following his teacher Saint Thomas –: “Being is God”.²¹

Characterizing this final reality and the experience of it is the most important and at the same time most dangerous task of the dogma. Here misunderstandings abound, especially if those descriptions are not seen as doctrinal condensations of experience and metaphors, but as propositional descriptions of reality.

A specific feature of the Judeo-Christian (and perhaps also the Muslim) doctrine of the final reality is the notion that God is personal. This also distinguishes the interpretation of these traditions from others, as far as I see. It is very difficult to use this term properly these days, and it is probably easier to say what it does *not* mean: It has to be understood as having a philosophical meaning and does *not* mean a particular person such as John or Mary. It does *not* mean that this reality has personality traits such as being irascible or merciful or sometimes a bit awkward, such as Mary, or warm hearted and a bit stupid, such as John. It rather means that this final reality, called God by this tradition, is, by its very nature and necessarily so, in constant direct and loving relationship to the world and us humans. The letter of Saint John has coined the simple formula: “God is love”. This was already common knowledge in the Jewish teaching and can be seen in Jesus’ addressing of this final reality as “Father/Mother”, along with all the other characterizations of what it means to be personal, given by the prophets of the Old Testament. If we now forget that these images are doctrinal condensations of a particular experience and the attempts to describe it, then all that remains is the shallow and empty image of an old man in heaven called heavenly father, who sees and judges all and sends punishment and rewards according to what he sees (and because he is quite old and has a lot to do taking note of everything, he often gets it wrong, to be sure). At the same time such a misplaced understanding generates distance and duality which all spiritual traditions strive to overcome or expose as illusion.

Because of all that, because the notion of “God” is the most difficult and most misunderstood notion of all creating more misunderstandings as it is used, I will try to avoid using it wherever I can. Instead, I will use the term “final or absolute reality”.

²⁰The Latin original is “God est sphaera infinita cuius centrum ubique, circumferentia nullibi”. This is a sentence that stemmed originally from a collection of philosophers from antiquity (The so called Liber XXIV philosophorum) which was a source for many medieval writers. It was taken up and reported by many notable philosophers and scholars, such as Alanus ab Insulis (Alain of Lille), Saint Thomas Aquinas, Saint Bonaventure, and Meister Eckhart (in his commentary on ecclesiasticus) from where Cusanus, who owned a copy and studied it, likely took it. See van Velthoven 1977, p. 190, Note 252.

²¹In his general prologue in his (unfinished) Opus Tripartitum (Weiss 1964, p. 38). Saint Thomas had already anticipated this with his theory of Being in his “De ente et essentia – On Being and Essence” (Aquino 1988).

2.10 Spiritual Practice, Meditation/Contemplation, Prayer

Let me finally say a few words about how I use the terms “spiritual practice”, “meditation” or “contemplation” and “prayer”.

“Spiritual practice” is the widest of these concepts, like a master concept. It denotes all intentional human acts which we use to show, document, practice, or renew our connectedness to a reality that transcends us. This could be a regular meditation or contemplation that we use to center ourselves. It could be participation in worship or in another religious event. It could be a very conscious act of tendering, for instance a garden, an animal, or another person. In as much as someone uses such a practice to *consciously connect* to a reality transcending one’s immediate goals I would call it *spiritual practice*. What is important here is the intention or the inner posture out of which we act.

Automatically performing religious duties, for instance, because otherwise one would be anxious and fear receiving divine punishment or social ostracizing or simply out of habit, I would not call spiritual practice.

Meditation or *contemplation* is a particular form of spiritual practice. *Contemplation* is a term normally used for a Christian form of meditation. Central elements of all forms of meditation or contemplation are the following:

- (a) They are performed regularly, often daily, and are part of a kind of spiritual hygiene.
- (b) They prescribe certain kinds of practice that are normally taken from an older tradition.
- (c) One element of such a practice is a training of attention. This can be achieved by directing attention towards inner acts, such as thoughts, feelings, and sensations, as they come and go, such as in mindfulness meditation. Or attention is focused on the breath, as in many other techniques. Another way of directing attention is focusing on a syllable or sequence of words taken as holy, such as in the Jesus prayer of Christian orthodox monks, in Vedic mantra meditations, in certain kinds of Zen meditation, in some Sufi practices, or by focusing on an inner or outer images, such as in some forms of Tantric practice or in Christian forms of contemplation using imagery.
- (d) This normally leads to a change in physiological activation, which will normally be some sort of relaxation, followed by states of absorption or perhaps even agitation.
- (e) In all spiritual traditions I know of it is assumed that through regular practice and exercise the preconditions are established for the practicing individual to achieve experiential access to that realm of absolute reality which is the goal and core of the spiritual experience. To what extent we can actually “produce” this experience is hotly debated. The Christian tradition has always explicitly pointed out that this experience happens only out of grace, and that it is given not earned, not forced or justly received. Other traditions don’t see that differently in principle, but emphasize other aspects more, for instance the necessity of active practice or striving on part of the practitioner.

Prayer is a way of connecting to this absolute reality in an active way, normally asking for something. It is different to meditation in that it is more active. Often prayer is about events in the outside world that are beyond the influence of the individual; often it is also about giving thanks.

These clarifications of basic notions should be sufficient. Let us be clear: these definitions are preliminary and are intended to provide a good basis for communication. They also describe my own personal horizon of understanding and are in no way definite or final.

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Chapter 3

The Historical Framework: Enlightenment, Science, and the Difficulties with the Notion of God

Kant, the German philosopher, defined enlightenment as “humans leaving the illiteracy and ineptitude which they have themselves incurred behind”.¹ We humans, Kant thought, are illiterate and inept because we are afraid to use our reasoning faculty. This prompted the recommendation “Dare to think”, or “aude sapere” in Latin. Kant wanted to see this enlightenment also applied to religion. This alerted the censors who, not liking that kind of enlightenment in the absolutist state of Prussia, went to work on him. Kant did not mean that by using thought and reason one would have to abolish the notion of god and to send his or her deputies on earth into the desert. On the contrary, the idea of god was necessary for Kant as a so called “regulative idea” to secure morals, justice and common sense. Neither was the immortality of the soul debatable for him. But all this was outside of philosophy proper, he thought. Rational argument could neither assert nor disprove these notions. Thus began enlightenment. It had extradited the religious out of the realm of philosophy and reason, initially towards the horizon of what is reasonable and thinkable, and later shifted it beyond that very horizon.

Enlightenment always means freeing oneself from being told by others, by authority, what to do, especially if the one telling is using vague authority, irrational systems and intending simple preservation of power that does not serve the common good. Taken in this sense, enlightenment has, even today, not reached its final pinnacle. Although we won't have church or state authorities telling us how we should lead our private lives, rather taking our own decisions and making our own value judgments, we are dependent in multiple ways and are being bossed around without even realizing it. Economic interests are engulfing large consumer groups using media presence to instill and suggest new needs which are then cleverly fulfilled. A few trendsetters with immense media presence and, thereby, power, suggest what one should wear nowadays, what is cool and what isn't. If we look carefully, we are not at all more enlightened in many aspects of everyday life than

¹ Translation mine; in his essay “Beantwortung der Frage Was ist Aufklärung? – Answer to the question What is enlightenment?” (Kant 1968, p. 6).

our forefathers: rather we have bought our supposed freedom at the cost of less obvious and therefore more powerful bondage. The impulse and the rise of enlightenment cannot be separated from the rise of science. This can be easily seen from as far back as antique science and philosophy in the Greek era. There we see how rational argument is pitched against traditional hearsay, critique of opinions against mindless acceptance of tradition, infinite curiosity against the taboo of the supposedly sacred. Through the Dark Ages this development of science suffered a severe breakdown which took centuries to overcome. Some think that we are still suffering from it today. How big that breakdown was we can glean from the fact that the library of Alexandria, the largest in the antique world, owned several hundred thousand scrolls and texts. Some hundred centuries after it had been destroyed the most influential library in the Western world, that of the monastery Saint Gall in what is today Switzerland, at the beginning of the Carolingian renaissance around 800 AD, owned about hundred volumes and was immensely proud of it.²

With the renaissance of the sciences and scholarly activities in the twelfth and thirteenth centuries, known as the Scholastic period, a culture of relentless questioning and critiquing started in schools that later became Universities, such as Paris, Bologna, Oxford, Cambridge. This early scholarly activity was exclusively dedicated to understanding and interpreting Biblical texts, at least initially, along with the texts of the early fathers and commentators such as Saint Augustine, Saint Gregory, or Saint Ambrose.³ Spain was mainly under Muslim rule at that time. That afforded many contacts between Jewish and Muslim scholars, as well as between Latin Christian and Jewish and Muslim scholars. The Crusades had many nasty and ugly sides, but one positive side for the West was a manifold interchange with the Muslim culture of the East which was far more advanced at that time than that of the West. Among other antique texts, Muslim scholars had preserved most of Aristotle's writings during the downfall of the Antique World. The Western Latin world had only fragmentary knowledge of the antique philosophies of Aristotle and of Plato. The contact with the Muslim world brought the knowledge of these old philosophies to the West.⁴ Christian scholars translated and commented on Aristotle.

²A fascinating, popular account of that era between antiquity and the middle ages is given by Thomas Cahill (1995) in *How the Irish Saved Civilization. The Untold Story of Ireland's Heroic Role from the Fall of Rome to the Rise of Medieval Europe*, and the complexities and vagaries of the tradition of antiquity is well described by Panofsky (1960) in *Renaissance and Renascences in Western Art*.

³*Paris and Oxford Universities in the Thirteenth and Fourteenth Centuries. An Institutional and Intellectual History* (Leff 1968) gives a good introduction to the subject. Good general historical accounts of that time can also be found in Crombie 1953; Southern 1986; Gilson 1955; Le Goff 1985; Rashdall 1936.

⁴Note that this has recently been debated by Gouguenheim (2008) in *Aristote au Mont-Saint-Michel: Les racines grecques de l'Europe chrétienne*, which was, however, heavily criticized for belittling the role of Islam in the tradition of antique texts into medieval Europe. To me it seems that this critique is a reaction to an honest, albeit politically incorrect opinion, which is very well

Thereby, new scientific ideas and approaches began to be discussed, and a new cultural and intellectual space of discussion and thought was created at Universities which began to make the philosophy of Aristotle the basis for their foundational degrees, the Master in Arts; particularly Oxford, but also Paris. In parallel, new Universities were founded. These places of scholarly education were mainly intended to educate clerics who would go into church service, but were also for future secular administrators at the courts of secular powers throughout the Western world. In addition, these places of learning also attracted a group of people who came just for the sake of knowledge and the freedom associated with this style of life, the scholars. All had to go through the same foundational training, then called the liberal arts, before they could then branch out into theology, law, or, later, medicine. These liberal arts consisted of teaching encyclopedic knowledge and philosophical education. All that was known then by way of factual knowledge was taught along with the philosophy of Aristotle, whose full corpus of writings were mandatory reading in Paris around 1253 and some two decades earlier in Oxford. This produced a kind of momentum within the closed-up world-view of the Christian Platonic-Augustinian philosophy of the Western world. The philosophy of Aristotle was only partially compatible with what was taught by the old masters inspired by Saint Augustine's combination of biblical scholarship with Platonic philosophy.

Thomas Aquinas and others in the thirteenth century had tried, with partial success, to reinterpret Aristotle within a Christian theological framework and to combine this philosophy with the Christian teaching so that an acceptable amalgam was created which held water for many generations (Weisheipl 1974; Grabmann 1926). This attempt at constructive synthesis could not hide the fact that the seed of critical thinking, of critiquing of such systems, had been sown. Some scholars did not accept the synthesis of Thomas Aquinas.⁵ Others refuted his way of interpreting Aristotle and advocated other views. In general the intellectual climate of Paris in the thirteenth century seems to have also inspired liberal thinking in other areas of life. For instance, some people asked loudly whether the church was really necessary for salvation, whether at the end of life we would really see the reckoning for our deeds. Was there really an individual, immortal soul? Perhaps there was only one soul in which everyone participated and which everyone contributed to? That was an idea supported by the influential philosopher Siger of Brabantium. Perhaps the world was not created by god after all, but was existent from all eternity? Was it really true that the ideas of morals as transported through church teachings were unavoidable? Perhaps sex outside of and before marriage was not so bad after all?

supported by the historical evidence. According to Gouguenheim there was much more knowledge of Aristotelian and classical texts around in Europe than is normally thought, especially in some centres of learning such as the Mont-Saint-Michel. The point, however, is: it was not taken up until later, when through new Greek manuscripts becoming available through the contact with the East during the crusades new translations were produced.

⁵Notably William Ockham a generation later: See McCord Adams 1987.

Perhaps one would not have to be married to one and the same wife for the rest of one's life? And what about homosexuality? Was being gay sinful? Perhaps not? Should we not enjoy life while it lasts, and not wait for a final judgment day that might not come after all? Perhaps ecstasy and final joy was something for today and not for tomorrow!

Does that sound familiar? Some of those questions are still being discussed as I write, which testifies both to the importance of these questions, our inability to solve them through rational discourse, and to the fact that those medieval minds were not so different from us after all. All those questions and more that were against the grain of church teachings were discussed by scholars of those days in Paris and in other Universities. Although this questioning happened in forms and contexts regulated by church authorities and overlooked by minds devoted to the church, scientific scrutiny and intellectual acuity had started to develop an impulse of questioning that was never to be quenched again. It is nourished by human curiosity and research that will not be stopped by readymade answers and implausible, dogmatic solutions. Our human rationality is not willing to accept faith, opinion and make believe, but wants to really know and to overcome uncertainties. Here we see the seed of enlightenment: From that seed, 400–500 years later, the real enlightenment was to grow; but the term enlightenment can be applied even to this initial seed of revolution of the human mind and research against doctrine and traditional teaching.

This we can glean from the fact that on March 7th in 1277 the bishop of Paris, Stephen Tempier, had 219 theses taken from contemporary writings and lectures, similar to those sketched above, scrutinized by a panel of theologians and condemned as heretical. Lecturers teaching those ideas had to stop teaching them and it was forbidden to discuss them further. This condemnation was certainly successful in the short term, as it allowed the church authorities to gain control. But the future path was laid out: Thinking and searching would not be reined in by clerical and doctrinal teachings for much longer.⁶

At the latest by 1277 a process had begun in which the unity of philosophy and theology, of science and clerical teaching, started to fall apart. Enlightenment was the final summit of that process. It resulted in the separation of clerical and secular institutions, of science and religion, in the twentieth century. An important impulse was passed on by the growing natural sciences. Additionally, their rising star began to shine at the turn of the twelfth to thirteenth century, again taking up Islamic knowledge that had preserved the learning of the Greek. At that time we find the notion of “experience” developed systematically for the first time in the West. Let's have a closer look at this development, as we will need it for the future argument.

⁶ Statements like those paraphrased above were among the 219 theses that were condemned by the Parisian bishop Tempier on March 7th 1277, following a commission of theologians that had prepared the collection. The collection of the theses can be found in *Enquete sur les 219 articles condamnés à Paris le 7 mars 1277*. (Hissette 1977). Flasch (1989) provides a good popular account.

3.1 The Development of the Natural Sciences and the Notion of Experience

3.1.1 Roger Bacon

The twelfth century scholar Adelard of Bath, after extended travels to Palestine, to the Norman court of Sicily, and to Arab and Jewish scholars in southern Italy, had brought a series of texts and some knowledge of optics into the West when he returned to England (Adelard of Bath 1998; Crombie 1953; Southern 1986). His successor Robert Grosseteste and Grosseteste's student Roger Bacon built on this knowledge and used those texts. In them, a series of experiments using prisms and lenses was suggested. The Latin term for those experiments was "experimentum" or "experientia" – "experience", or as a verb "experiri – to make an experience". One who has had such knowledge, after having had such an experience was an "expertus – an experienced person, an expert". The word used to describe this is the same as that used in the introduction. It stands for journeying in an unknown country. "Experiri" meaning to "make a journey" (by sea).

Roger Bacon, who wrote his most important texts between 1240 and 1292, was the first to formally postulate a "scientia experimentalis", an "experiential way to knowledge", which should be privileged and foundational to every other science and knowledge.⁷ This "experiential way to knowledge" was a trifold scheme of (a) outer or sense experience, (b) the formal mathematical analysis of this experience, and (c) inner experience. It is quite instructive to listen to one of Bacon's central sentences in the original. It is taken from his "Opus Majus – the larger Work". This was a book, in two volumes in the modern edition, which he wrote in 1267 when under close supervision and potentially under house arrest by his superior Bonaventure. He could not publish or teach without asking for permission. Bacon tried to circumvent this prohibition by dedicating and sending this book to the pope, who was actually quite interested in Bacon's theories and had invited him to explain them to him. Bacon did so in what must have been several volumes of handwriting in his days, and dispatched it to the pope by personal messenger. There we read:

There are two forms of experience. One is mediated by the outer senses. That way we have experiences about what is in the skies and on earth. This is the human, philosophical-scientific experience that a human being can have depending on his gifts. However, this experience does not suffice for man. For regarding matter it can give him too little security, because it is so difficult to fathom. – [that we would see differently nowadays, roughly 750 years later; HW] – And with all things spiritual it does not achieve anything. Therefore the human mind needs other aids. This is the reason why the holy prophets and patriarchs, who

⁷A very good new monograph on Bacon and on how to understand his ideas is provided in *Roger Bacon and the Defence of Christendom* (Power 2012). I have elaborated on the issues sketched in the following in more detail in *Notitia Experimentalis Dei – Experiential Knowledge of God: Hugh of Balma's Mystical Epistemology of Inner Experience – A Hermeneutic Reconstruction* (Walach 2010). His work in the natural sciences in particular is well covered by Hackett (1983, 1995, 1997a, b) and by Lindberg (1997).

were the first to give knowledge to the world, received inner enlightenment and why they did not stick to the outer senses alone... This inner science has seven levels...“ [Bacon then describes these levels: Level one concerns the scientific experience of the senses only, level two the virtues, three the gifts of the Holy Spirit, four the Blessings from the Sermon of the Mount, level five the spiritual senses, level six the fruits of the spirit and inner quietude. He then goes on to say:] *“The seventh level consists in the spiritual experience of spiritual ecstasy. Everyone will be taken into it according to his or her own individual nature such that he or she will see many things, which man may not name and talk about. Whoever has enough experience in those ways of experiencing, or rather in many different ones, he then can certify himself and others not only in spiritual matters, but also in all things concerning human science... We therefore need a science that is called experiential science. And I will explain this not only regarding her usefulness for philosophy, but also for the Wisdom of God and for political governance.* (Bridges 1897, p. 169)⁸

We can see: At the beginning of the scientific development in the West that in the end will lead to our modern day natural sciences, which will rest entirely on the notion of experience and experiential or empirical science, we find a notion of experience that is still holistically one. It refers to our sense experience that captures the world through our senses. But it also refers to an inner experience of our world in a deeper dimension through spiritual or inner experience. For Bacon both meanings of the notion of experience belonged together and were part of a single striving for

⁸The Latin original is as follows; the translation is mine

p. 169: Sed duplex est experientia; una est per sensus exteriores, et sic experimenta ea, quae in coelo sunt... et haec inferiora... experimur... Et haec experientia est humana et philosophica, quantum homo potest facere secundum gratiam ei datam; sed haec experientia non sufficit homini, quia non plene certificat de corporalibus propter sui difficultatem, et de spiritualibus nihil attingit. Ergo oportet quod intellectus hominis aliter juvetur, et ideo sancti patriarchae et prophetae, qui primo dederunt scientias mundo, receperunt illuminationes interiores et non solum stabant in sensu... Nam gratia fidei illuminat multum... secundum quod Ptolemaeus dicit in Centilogio quod duplex est via deveniendi ad notitiam rerum, una per experientiam philosophiae, alia per divinam inspirationem quae longe melior est, ut dicit. Et sunt septem gradus hujus scientiae interioris, unus per illuminationes pure scientiales. Alius gradus consistit in virtutibus...

p. 171: Virtus ergo clarificat mentem ut non solum moralia sed etiam scientialia homo facilius comprehendat...

Tertius gradus est in septem donis Spiritus Sancti... Quartus est in beatitudinis, quas Dominus in evangeliiis determinat. Quintus est in sensibus spiritualibus. Sextus est in fructibus, de quibus est pax Domini quae exsuperat omnem sensum. Septimus consistit in *raptibus* et modis eorum secundum quod diversi diversimode capiuntur, ut videant multa, quae non licet homini loqui. Et qui in his experientiis vel in pluribus eorum est diligenter exercitatus, ipse potest certificare se et alios non solum de spiritualibus, sed omnibus scientiis humanis... necessaria est nobis scientia, quae experimentalis vocatur. Et volo eam explanare, non solum ut utilis est philosophiae, sed sapientiae Dei, et totius mundi regimini.

I have translated the Latin notion of “raptus”, italicised in the text, with “spiritual experience of spiritual ecstasy”. The notion “raptus” is a technical term of mystical theology and means that the human mind is being taken into a special state, out of its normal connectedness to the world into a spiritual world. The authors of the antique and medieval tradition frequently discuss whether being taken into an ecstasy actually means being taken out of the body into the “seventh heaven”, i.e. as far as to God himself, or whether the experience stops shortly before that. Be that as it may, the notion “raptus” means an experience of spiritual enlightenment by absolute being which conveys knowledge and wisdom. I therefore chose a somewhat free and descriptive translation.

knowledge and understanding. The goal of this striving was knowledge and “political governance”.

Bacon was one of the really free spirits of High Scholasticism. Initially he was a wealthy citizen who studied out of interest, and was then teacher of philosophy in Oxford and Paris. Only when he was already quite mature, roughly at the age of 37, did he join the Franciscan order. There can be no doubt that his goal was the foundation of science in general as a means to defend Christianity against the potential intellectual onslaught by Islam and also the Mongols. For this foundation he was a seminal figure. Later thinkers who laid more groundwork for our modern science, such as William Ockham, were directly or indirectly influenced by him. Thus we can justly say that Roger Bacon marked the beginning of systematic reflection about what it means to have an all encompassing science.

When the collection of 219 theses was condemned in Paris in 1277, Bacon was very likely also there. Although we still don't know whether some of his own sentences were among those condemned, his style of free thinking was surely one of the sources that fed the enlightenment movement. This can be seen from the fact that his superiors put him under arrest now and again and prohibited his teaching and publishing, especially after the condemnation of 1277, and that his writings, despite all these measures, found their way into the public and reaped their fruits through the times.⁹

We saw: For Bacon inner and outer experience were one. Stated differently: Scientific and spiritual experience were two sides of one process of understanding and knowing, called experience.

3.1.2 Hugh of Balma and the Development of Inner Piety and Private Mysticism

To install spiritual experience, or, as he called it “experiential knowledge of God” – “notitia experimentalis Dei” in Latin – within the scientific-scholarly activities of his age was the intention of a very little known but highly influential writer of those days. He is known to posterity as the Carthusian¹⁰ Hugh of Balma, author of the text

⁹Amanda Power (2012) thinks that there is little historical evidence for Bacon's opinions being among the theses that were condemned in 1277 and for an incarceration or house arrest. Pierre Mandonnet (1910) surmises that Bacon's opinions on astrology may have been the reason and that some sort of restriction is likely: Be that as it may, Bacon seems to not have had a direct influence on his contemporaries, and certainly did not change, as he had hoped, the whole syllabus of academic teaching. It was only later, through Pico della Mirandola in the 15th and Francis Bacon in the sixteenth/seventeenth century who both knew Bacon and used him freely, that Roger Bacon's ideas found some influence.

¹⁰Carthusians are a particular type of Christian contemplative and eremitic monastic order founded at the end of the eleventh century by Saint Bruno of Cologne. They take their name from the valley of the founding house – Le Chartreuse near Grenoble in France. They live in small houses as hermits, joined together in a community of 13 people with a lot of solitude and roughly 8 h of prayer

“Mystical Theology”, sometimes better known by the words at the beginning of the text “*Viae Sion lugent – The ways to Sion mourn*”.¹¹ Hugh of Balma’s central thesis is simultaneously simple and radical. He says we can gain experiential knowledge of God – *notitia experimentalis Dei*. In order to attain this we do not need prior education, studies, clerical vows, or even male gender. On the contrary: mental activity, thinking and imagination are even obstacles on that way. All we need to do is to let go of mental activity, imagination, and other cognitive acts, open up completely to the love of God, and to strive with all our desires and voluntary acts to be united with him. If we do that it cannot be otherwise than that God, whose nature is abundant love and grace, unites with the soul all by itself. This experience happens in what is called the “ground of the soul”, or “summit of the mind”, the “spark of the soul”, where no thinking, no mental acts happen any longer.¹²

a day, two meals of vegetarian diet a day, some manual labor and some community elements. They come closest to the ancient hermitic orders of the desert. In those days they spread out a lot and even went to cities, such as Paris, where a Charterhouse was founded in 1257; the development of the order and its expansion is well described in Hogg (1987) *Die Ausbreitung der Kartäuser*.

¹¹This is not a good place to elaborate on Hugh of Balma, the author and its text. I have done that elsewhere in an extensive study (Walach 2010). I have tried to show there that Hugh of Balma likely was either part of or sympathetic towards the radical Franciscan movement of the Spirituals. He mainly argued against Bonaventure and his interpretation of mystical theology, but also against other authors. I have also tried to show that the author likely was not originally a prior of the Carthusian order, as implied by traditional teaching, but rather a Franciscan who only later joined the Carthusian order. The time and place of flourishing was likely Paris around the time when the Paris charterhouse was founded, i.e. after 1260. It is difficult, however, to prove this, and I can only argue from internal textual evidence for this thesis. However, this book does not depend in any way on the accuracy of this historical argument, and hence I will not deal further with it. Dennis Martin (1997) offers an English translation of the text and a historical introduction that contains the received view and some standard arguments against my own position. Incidentally, it might easily be possible that some of the teachings condemned in 1277 were actually directed against some of Hugh’s radical theses. One of these condemned theses reads: “That one can have eternal life already here, in this life.” Normally scholarly wisdom attributes this sentence rather vaguely to generic Epicurean teachings. Hugh of Balma also taught that spiritual experiences would allow us to taste heavenly joy even here on earth. Another of the condemned theses says that spiritual experiences (“*raptus et visiones*”) occur only naturally. (For the original text of the condemned theses see Hissette 1977). Normally scholars assume that this was targeted against some Arab teachings of Algazel or Ibn Sina and their Latin follower Boethius of Dacia. They might also have been intended to mean Hugh’s teaching, which state that whoever had some practice could attain spiritual experiences quite naturally, “hundred, even thousand times a day”. I mention these points briefly to illustrate what I have argued for extensively, namely that Hugh’s teaching was so radical and at the outer margins of what was acceptable these days that it is quite understandable that both his person and his thinking went under for some time. The tradition of his text starts re-emerging roughly 100 years after his death. We don’t know anything about the person, apart from what I have indirectly deduced from his texts. All standard sources report inconsistently and, in my view, wrongly.

¹²I have elaborated on the history and meaning of the notion of “experiential knowledge of God” elsewhere (Walach 1996, 2010). Briefly, Hugh of Balma follows a certain tradition that can be traced back to Ps. Denys the Areopagite in the fifth century and his translator and commentator Thomas Gallus of St. Victor at the beginning of the thirteenth century. In this tradition the summit of the mind (“*apex mentis*”) or the spark of the soul (“*scintilla synderesis*”) which resurfaces in

What remains from this experience is a deep, all embracing wisdom and knowledge about God and the world. Additionally, the side product of such a deep experience is all encompassing love towards all human beings and creatures, especially towards those of a different belief system, the persecuted and expelled ones, and those who expel themselves from the community of the faithful.

Hugh probably wrote at the same time as Roger Bacon was in the Franciscan study house in Paris.¹³ It would be not a surprise if we learned that he might have lived and worked in the same house, even, at least for a while. Like Roger Bacon, who wanted to lay a foundation for the whole of scholarship, learning, and science, Hugh of Balma wanted to renew the foundations of theology. It should not be Biblical knowledge, reading and thinking along the lines outlined by theological authorities, i.e. cognitive activity, that would deepen the knowledge of God and his works, but *direct experience*. It can be gleaned from the way he constructed his text, his potential audience and his adversaries that Hugh did not simply want to contribute to a fringe market of theology. No, he wanted to address the mainstream opinion leaders of his days. Why else should he attack Bonaventure, the leader of the Franciscan order and major professor in Paris of those days? Why else attack also some Dominican teachings around Thomas Aquinas? Very likely Hugh wanted to establish the mystical-theological teaching of the experiential way of knowing God – spiritual experience as we have called it – as a valid epistemological option within the framework of the scholarship and even science of his time. Hugh was not radical in the sense that he did not allow for other approaches and opinions. But he certainly stressed his point to the limit to establish experiential inner knowledge of God as a legitimate access route, which is why he is fairly aggressive in his terminology. Experiential knowledge of God, inner experience in the sense of Bacon or spiritual experience in the way we use it, was to be an accepted, important, and viable form of knowledge. This was his remit.

However, it did not quite work out as he had hoped, obviously. At least we do not find a trace of him in the academic records of his time after he had given what I take to be his inaugural disputation.¹⁴ We don't find him among the register of professors

Meister Eckhart is the place of the spiritual experience of unification. It belongs to the part of the mind called the "affect" (affectus). This is the part oriented towards the Good and can be interpreted as an inner organ of pure receptivity. The thought is the following: The summit of the mind as part of the affect is entirely directed towards the pure and perfect Good. This is God himself. That means the mind is being touched by God himself, receives him and is unified with him. This is what we call experiential knowledge. It happens through an interior sense (sensus interior).

¹³If my assumption that Hugh was originally a Franciscan in the Oxford and later in the Paris study house of the Franciscans who tried to influence academic discourse on how to arrive at divine knowledge is correct (which I have tried to argue for and give some textual evidence of in my 1996 book on Hugh), then it would be not only likely but logical that Hugh and Bacon were living in the same house. I have produced some further textual evidence that Hugh likely was hinting at Bacon in some of his criticisms, and thus knew him, in my 2010 monograph (Experiential Knowledge of God).

¹⁴Hugh's text "Mystical Theology – Viae Sion Lugent" contains various text elements that have been later edited into one volume, probably by the author himself. The final part – and earliest in terms of composition – is a "Quaestio", i.e. an academic disputation. While, in principle, everyone

and masters, and his traces are lost in the darkness of history. It is only 100 years later that others started copying and distributing his text widely.¹⁵ He was a major source for all later and well known mystical authors, who sometimes copied him verbally. Thereby he became a second, but virtually unknown, father of Christian mysticism, after St. Augustine.

This points to the path that his ideas were taken along: It was not within academic-scholarly teaching, as he had obviously originally wanted, that his teaching found a home – perhaps excluding Nicolaus Cusanus – but within mysticism, inner piety, and private religiousness. Thereby spiritual experience as a potential modality of knowledge was extradited into the underground of the history of ideas. Here it was to continue affecting important persons and reformers such as Thomas a Kempis, Teresa of Avila, Ignatius of Loyola, St. John of the Cross, and Martin Luther. But direct effects within scientific-academic circles were precluded.

3.1.3 Inner Experience in Theology: Thomas Aquinas and Meister Eckhart

It is only with two academic writers that we find traces of Hugh of Balma's teachings following his supposedly active writing period: with Thomas Aquinas in his latest texts, and in Meister Eckhart. Thus at least a trace of Balmian mysticism remained within academic theology, even though it did not become the standard. It goes without saying, of course, that mystical thought and leanings have been around for a long time, since Saint Augustine and the early Church Fathers. Therefore, mystical theology was always part of the theological enterprise. However, none of the thinkers were as radical and straightforward as Hugh of Balma in trying to build the whole edifice of theology on direct inner experience. As we have seen: it is

could have composed such a text, it makes sense to assume that the form of an academic disputation also has some meaning, and this is why I take it to have been intended as an academic disputation. Such a disputation would have to be given by a young master or professor of theology before he could start teaching. I therefore assume that Hugh's intention was academic teaching and his "Quaestio" the reflex of this plan. The only direct resonance that Hugh's text seems to have had was in Ramon Llull's "Contemplatio Raimundi" (Lullus 1989). This book was composed in the Paris Charterhouse between 1297 and 1299. It is a rather straightforward cognitive approach to contemplation, but contains a post-scriptum that seems out of place: "Quomodo contemplatio transit in raptum – How contemplation leads to ecstasy". In this section Llull answers real or imaginary arguments, and widens his concept towards a more affective interpretation of mysticism. That led me to assume that here we can see a direct mirroring of a debate between Llull and Hugh or one of his later followers. I have pointed out all the parallels and particular texts in Walach, *Notitia experimenalis*, 1996.

¹⁵The earliest textual witness, to my knowledge, is dated 1370, is anonymous, and stems from the Charterhouse in Trier, Germany. Again about 100 years later the author is mentioned by name for the first time in a manuscript that comes from the Grand Chartreuse. Thus his name started to circulate with an eclipse of 200 years after writing.

paralleled by Bacon's attempt, at the same time, to found the whole of scholarship and science on experience, both inner and outer.

One would not normally point to Thomas Aquinas as a mystic. Rather, his life's work was to attempt to combine Aristotelian philosophy with traditional Augustinian teachings. His basic notion was that the essence of God was unknowable. We can only know his existence and his acts through his creation (Dondaine 1955; Hoye 1975, 1976, 1988; Wéber 1976). Some time towards the end of his life he must have changed or broadened his opinion, or even revised it. On Dec. 6th 1271 he had a profound experience, which we can probably interpret as a mystical or spiritual experience of the final ground. He stopped writing after that, although he was in the midst of writing the last book of his *Sum of Theology*. His biographer and secretary, William of Tocco, reports that Thomas felt everything he had written appeared like straw to him compared to what he had seen in his experience (Guilelmus a Tocco 1996). Somehow, he must have thought about such an experience or even prepared for it.¹⁶

Some of the final texts that Thomas wrote at the very end of his life, in the second part of the second book of his *Sum of Theology*, discuss the possibility of experiential knowledge of God. It might be quite possible that Thomas is not actually addressing Hugh of Balma as such, but Greek authors (Dondaine 1952). That does not really matter, for the result is the same. He states that, yes, there is a kind of experiential knowledge of God that happens in the state of ecstasy. He uses the same term that we have seen above in Roger Bacon as "raptus", which I have rendered as "spiritual experience of spiritual enlightenment". This is a kind of grace that allows us to step at least to the threshold of knowing God's essence. Thomas always remains firm here regarding his teaching that he does not allow for a final knowledge

¹⁶It is quite deliberately in a polemic tone that I say Thomas prepared himself or was prepared for an experience that he had at the end of his life and that this was reflected in those texts he wrote at the very end and shortly before he actually had this experience, in the second book of the second part of his *Sum of Theology*. These texts are among the very last he produced. Shortly afterwards he stopped writing altogether. His earlier texts about epistemology, for instance, his *Disputed Questions*, his *Commentary on Ps.-Denys' Divine Names*, his *Sum against the Gentiles*, do not contain, to my knowledge, anything regarding experiential knowledge of God that goes beyond what we know from traditional Augustinian teaching. I am quite aware of the fact that we find a lot of elements in Thomas' biography that would count as what we have called spiritual experiences here. However, looking at how he worked it seems to be the case that a thought found shape in him mostly when actively engaging in a real discussion with a living author or an opponent. This is well known for his texts that can be seen as an answer to Siger of Brabantium or William of Saint-Amour. It is therefore quite plausible to assume that those questions and answers regarding experiential knowledge of God in the final part of his *Sum*, apart from the fact that this is the systematic place for them, were fuelled by real discussions and actual discourses he referred to. Thomas would have had many occasions in earlier parts of his *Sum* to talk about this issue. He actually does so, but there he always confines himself to rendering the traditional perspective and giving his own opinion that the essence of God is unknowable. Only in those very late parts he seems to step beyond the territory he chartered earlier. I have argued for this position in an article which will appear soon (*Affection – affectus*) in the *Encyclopedia of Carthusian Spirituality* to be edited by the Centre du Recherche de Spiritualité Cartusienne. Some of the important texts are contained in Saint Thomas, *Summa Theologica*, Sec. Sec. Q 175, art. 1–5; Q 180, art. 5 ff. (Thomas 1980).

of God's essence, not even in experiential knowledge. But in that kind of experience we are being lifted beyond our nature by grace into a realm of deeper understanding.

In this way the notion of experiential knowledge of the absolute was introduced into the textbooks of theology by the authority of Saint Thomas Aquinas himself, at least in traces, and could make its way through history. (But it really is only in traces and, as with the traces of nuts in a lot of our food, only those really sensitive notice those traces, for the rest it is quite irrelevant.) Some authors, at least those with a mystical leaning, could refer to it later on.

Four years after the death of Thomas Aquinas, i.e. in 1277, in the same year of the fatal condemnation of the 219 theses mentioned above, a 17 year old German Dominican friar, Eckhart of Hohenheim, later known as Meister Eckhart, began his studies in Paris and later followed on the same chair that had been occupied some decades earlier by Thomas Aquinas (Albert 1976; Koch 1939, 1959; Ruh 1982). It is very likely that Eckhart knew about Hugh of Balma's teachings. At least, in Eckhart's German texts there are quite a few passages that are literal quotes from Hugh's text.¹⁷ Eckhart's teaching is much more inspired by the neo-Platonic philosophy that became known and fashionable in his days, and hence leans more towards a cognitive interpretation of mystical knowledge. That does not change the fact that he had a similar tendency and impulse: to find a place for an experiential unification of the soul with God in the ground of the soul. In those texts that were not meant for academic argumentation or teaching but for pastoral care, the tracts that have been written in German for people asking him for advice or the sermons noted down by his listeners which he gave to nuns within his pastoral care, he tried to impart some of the taste and an inkling of the experience. Only someone who can access the depth of such experiences himself can use images, language constructions and paradoxes as Eckhart has done, for instance, when he says we must first get rid of God if we want God to be born again in the depth of our soul such that he who has this experience becomes God's son himself. When he says we need to "get

¹⁷I will have to delay a full set of evidential textual parallels to a later study. Suffice it here to mention just one striking parallel: In Eckhart's "Reden der Unterweisung – Speeches of Teaching, No. 20, we find the following passage (translation mine):" Dieses Empfangen und selige Geniessen... liegt auch im geistigen Genuss mit begehrendem Gemüt und in andachtsvoller Einung. Dies kann der Mensch so vertrauensvoll empfangen, dass er reicher an Gnaden wird... dies kann der Mensch tausendmal am Tag und öfter vollziehen, er sei, wo er wolle, ob krank oder gesund... – This receiving and blissful enjoyment ... is part of our mental enjoyment with **desiring affect** and devote unification. This an individual may receive faithfully such that he becomes richer in grace ... this an individual can receive **thousand times a day** and even more frequent, wherever he may be, whether healthy or sick... (Meister Eckhart 1963, p. 86, 26ff). (An English edition is available as *Meister Eckhart German Sermons and Treatises* (Walshe 2008) Both, receiving god in the affect ("affectus") and with desire ("desiderium"), and the provocative talk about the possibility of having this experience more than thousand times a day are topical phrases that can only be found in Hugh of Balma in this clarity. In his Prologus to his text "Mystical Theology" we read (translation mine): "he will be moved, more quickly than we can think, without any previous or concomitant thinking into God, **hundred or thousand times a day**, or in the night, such that he might possess him alone **in the striving of unspeakable desire**. (Viae Sion, I.5).

rid of God” or to “dis-become” he means, of course, the letting go of all cognitive concepts and acts, in order to allow for the spiritual experience of the final Ground in the inner silence, which we have addressed as spiritual experience.¹⁸ It is not very difficult to show the parallels between Eckhart’s ideas and those of the Zen-way; however we don’t want to go into those details here.¹⁹

We are not trying to be too scholarly here, for all we need are three clear examples to illustrate the general argument: At the beginning of the Western development of science that ended in our modern day natural sciences and that started with scholastic scholarship we find a unified, holistic concept and notion of experience. This notion of experience had two sides: Outer experience is mediated through our sense organs, refers to our outer, material world and mediates knowledge of this world. Out of this notion arises, slowly but irresistibly, our modern experimental science. The second side of the notion comprises inner experience, which we have also called spiritual experience. We have seen that at the beginning of this whole development, around 1260–1270, there were attempts to introduce both sides of experience into the academic contexts as modes of knowing. Only the notion of sense experience, outer experience, succeeded in establishing itself as a viable concept, starting with the simple optical experiments of Robert Grosseteste and Roger Bacon in the thirteenth century and leading up to the important experiments of Galileo Galilei at the turn of the sixteenth to the seventeenth century. Thus, experiments and empirical knowledge became inextricably linked with scientific method. But this was not true for the other side of the notion, inner or spiritual experience, at least not until today. Only in small pockets of mystical theology, but not in the mainstream of academic theology which was still the major scholarly activity for some centuries to come, could inner or spiritual experience exist as a way of knowing.

It was philosophy that allowed a ramshackle home for the general idea of a speculative knowledge, only mediated through an inner kind of seeing. However, it might be questioned whether this was a good partnership, as the original notion of inner experience was decidedly non-cognitive and super-rational, whereas within philosophy we always have the danger of cognitive, or rather, cognitivist misunderstandings of this notion (Albert 1974, 1996). We should at least mention some exceptions: Nicolaus Cusanus, for instance, who argued extensively for a mystical theology at the end of the fifteenth century. (If the authorities at that time had listened, the whole reformation business might not have become necessary in the first place.) Other important, if forgotten names are Jean Gerson or Denys the

¹⁸This radical extinction of cognitive acts is not new, of course. It is part and parcel of the Ps.-Dionysian tradition which in its super-rational act of going beyond cognition has already brought it to the discussion. But the *methodological interpretation* of how to actually do it, provided by Thomas Gallus and following him Hugh of Balma, this is quite new, and Meister Eckhart is to be seen in this straight methodological line of contemplation. All these authors interpret Ps.-Denys to the effect that this super-rational act means leaving aside all cognition and entering a state of pure receptivity and striving at the same time. It would be worthwhile to follow this line of reasoning deeper into the textual evidence in Eckhart than I can do here.

¹⁹This was done by S. Ueda (1965) in, for example, his *Der Zen-Buddhismus als ‘Nicht-Mystik’ unter besonderer Berücksichtigung des Vergleichs zur Mystik Meister Eckharts*.

Carthusian.²⁰ But in very general terms theology and philosophy remained tied to a rather rationalist view of knowledge and understanding, and inner experience as a legitimate additional way of knowing was prevented from reaching the inner sanctum of academic teaching and research.

3.1.4 *Inner Experience in the Beginning of Modern Psychology*

The birth of psychology out of the agony of philosophy in the nineteenth century tipped the balance slightly, at least initially. William James, one of the founding fathers of modern psychology and the first chair of psychology in the United States at Harvard, defined psychology as the science of consciousness in his textbook of psychology.²¹ If that definition had been generally accepted, consciousness and its different modalities would have received proper attention. James (1985) supported his interest in consciousness by a thorough and still authoritative phenomenological study of spiritual experiences across cultural boundaries, his “Varieties of Religious Experience”. This would have afforded a good starting point for reintegration of the lost child “inner experience”. However that ball was not scooped up. The more powerful part of the scientific community at that time, scientifically speaking namely Germany, did not really like this development very much. Wilhelm Wundt, the father of experimental-academic psychology, banned research into non-ordinary states of consciousness from the scientific agenda in a preface to a revised edition of one of his books. He did this by admonishing all his readers, followers, and serious psychological scientists not to follow the meandering passages of non-ordinary consciousness. First of all, ordinary consciousness and everyday functions had to be mapped, in order to not play havoc with the still fragile scientific reputation of psychology in the face of hard-nosed colleagues from the natural sciences.²² For the

²⁰Both authors were very important and influential in their time (Pohlen 1941; Stelzenberger 1928). Denys the Carthusian was extremely productive, writing 40 folio volumes. He functioned as friend, secretary, and adviser to Nicolaus Cusanus and accompanied him on most of his journeys. He might have been another source of Cusanus’ leaning towards mystical theology, although he had his own share in studying Meister Eckhart carefully. The volumes of Eckhart in Cusanus’ possession form the basis of today’s critical edition, and his annotations show how carefully he must have studied him.

²¹“The definition of psychology may be best given in the words of Professor Ladd as the description and explanation of states of consciousness as such. By states of consciousness are meant such things as sensations, desires, emotions, cognitions, reasonings, decisions, volitions, and the like. Their ‘explanation’ must of course include the study of their causes, conditions, and immediate consequences, so far as these can be ascertained.” (James 1984, p. 9).

²²See *Origins of the modern concept of “Neuroscience”*. Wilhelm Wundt between empiricism and idealism: Implications for contemporary neuroethics. (Kohls and Benedikter 2010). Here the authors show how Wundt, by being unwittingly drawn into research around the medium Slade, became scared of any non-standard type of research and decreed this type of work unprofessional.

same reason Sigmund Freud refused to take up forms of knowledge and consciousness other than those discussed in the framework of his new method.²³

Not so Franz Brentano, Wundt's Viennese rival, who was to become the father of a psychology of introspection that was long undervalued. Brentano, like Wundt, espoused a radical empirical standpoint, which he propagated against Kantian and idealist-Hegelian philosophical attempts. In his habilitation thesis in Würzburg in 1866 he had defended the thesis "vera philosophiae methodus nulla alia nisi scientiae naturalis est – The true method of philosophy can only be the method of natural science" (Benetka 1999).²⁴ When he took over the chair of philosophy in Vienna in 1874 that was later taken over by Mach, he started to develop the principles of what he called "descriptive psychology". Thereby he meant to deduce general laws of psychology from inner experiences. This program was thwarted in several ways: For one, systematically speaking, it did not work. Introspection without proper training of the person observing his inner acts and experiences was too unguarded and insecure. Besides, no proper methodology existed (and exists) as yet to distinguish proper and true findings from errors and flaws (Lyons 1986; Walach and Runehev 2010). Secondly, and historically, Brentano had no real academic success. He was a Catholic priest that had left the church over the dispute about papal infallacy, since he was the secretary that had drafted the dissenting response of the German bishops. Following the defeat of that position Brentano felt he could not stay on. He then fell in love with a Jewish heiress of a business in Vienna, Ida von Lieben, and was unable to marry in Catholic Austria. So he had to resign and move to liberal Saxonia, where he could marry. His intention, and the Viennese faculty's promise, was to come back and regain his chair. However, this plan was thwarted by the emperor's refusal to sign the paperwork and various administrative intrigues such that Brentano left Vienna and his academic work in 1895,²⁵ dispirited and without having achieved what he came to do.²⁶ He went into exile, first to his Austrian home,

²³At least that is what he said openly. Privately and in letters he expressed great interest in telepathy, believing that transferences were some kind of telepathy and such non-ordinary states of consciousness were part and parcel of the work of a psychoanalyst. However, he was quite aware, like Wundt, that this must not become public. (Simmonds 2006).

²⁴The thesis itself is unpublished. Hedwig (1987) and Tiefensee (1998) give the original archival source and quote it. Ironically, the neopositivist Viennese circle later built on exactly this thesis of Brentano and his work, Mach having succeeded him on his chair. See Smith 1994.

²⁵The farewell lecture by Brentano- *Meine letzten Wünsche für Österreich* (Brentano 1895) is actually a rare piece in the libraries of Europe. The library of Vienna is supposed to have a copy, which, however, cannot be found so I had to go for a distant loan. Such is the aftermath of Brentano's leave!

²⁶He said himself that he did not achieve writing his "magnum opus" in which he had meant to outline such a psychology. There is no full biography of Brentano's, so what we know about his life stems from his students who report it (Stumpf 1919; Husserl 1919; Steiner 1921; Kraus 1919; Tiefensee 1998). *Franz Brentano und die Zukunft der Philosophie. Studien zur Wissenschaftsgeschichte und Wissenschaftssystematik im 19. Jahrhundert* (Franckegg, and Wehrle 1989) contain a lot of unpublished material. Apart from *Immanent Realism: An Introduction to Brentano* (Albertazzi 2006) there is as yet no authoritative biographical and systematic monograph in English dedicated to Brentano's life and work.

later to Florence and finally to Zurich, being increasingly shut out of the scientific discourse of the nascent discipline of psychology, and died in 1917.

His indirect influence was considerable though, through his students who went to found Gestalt psychology.²⁷ Edmund Husserl, perhaps his most famous and influential student, took considerable inspiration from Brentano. He took Brentano's principle of using introspection and inner experience back into philosophy – Brentano had actually envisaged psychology as the place to methodologically use it – and tried to found a pure phenomenology on the principle espoused by Brentano that pure observation of our inner acts should actually reveal reality as it is. Husserl introduced a new technical stance which he called by the Greek term “*epoche*”, meaning abstention, standing back.²⁸ Thereby Husserl was actually trying to achieve what is necessary to make introspection work, namely a special state of consciousness that is free from egoic content, prejudice, and preconditions as much as can possibly be achieved. One can make a point in saying that pure phenomenology, as envisaged by Husserl, and a mindful, meditative state as intended by any type of true spirituality are in fact quite similar. To prove this point would necessitate its own argument, however, which I cannot provide within this historical overview.

Another important indirect influence of Brentano's was on Freud, who had heard his lectures in Vienna (Merlan 1945, 1949). Very likely his methodological approach of introspection as a source to gain knowledge of psychological laws in a state of special attention, called “*freischwebende Aufmerksamkeit* – hovering attention”, is a direct result of Brentano's teaching.

However, all those impulses did not really reach the mainstream of psychology. While Husserl was influential in philosophy, he remained skeptical about psychology as a foundational science as Brentano had seen it. Freud created a powerful instrument, but his method did not really reach psychological theory in academia until very recently. The impact of Gestalt psychology was lost over the war, as most of the Gestalt psychologists were either Jews, such as Wertheimer or Koffka, or opposed to Nazism and left both Germany and their academic environment. It is only now that the legacy of Brentano is being taken up, slowly and carefully. In neuroscience we hear the call for a “*neurophenomenology*”, i.e. the methodological demand that neuroscientific data that are gathered from an objective, third-person singular perspective should be complemented by a phenomenological, first person-singular, experiential, introspective account.²⁹ This is what Brentano would have liked to happen right from the beginning of academic psychology in 1874. It is what was put off the agenda by Wundt's focusing on the experimental method. And with

²⁷This influence happened via his direct students Karl Stumpf and Alexius Meinong. See Albertazzi et al. 1996.

²⁸See *Husserl's Phenomenology* (Zahavi 2003) for a good introduction to Husserl and *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie* (Husserl 2009, orig. 1930) for a direct exposition.

²⁹To my knowledge Varela et al. (1991) were the first to postulate this in their book *The Embodied Mind. Cognitive Science and Human Experience*.

it, only now can spiritual experience as a specific type of inner experience or introspection become, once more, the focus of scientific attention.

Thus, psychology in its beginnings has not taken up the chance to re-integrate the repressed part of human epistemology, inner or spiritual experience, and thereby start forming a holistic notion of knowledge and understanding.

Today we have reached the end of enlightenment it seems, and we are standing in the midst of a world breaking into pieces which we cannot prevent from falling apart using the rational insight that was alone the guide for modern science. What seems to be necessary, in my view, is an extended notion of rationality that includes spiritual experience, moreover that uses spiritual experience as its base camp. What also seems to be necessary is a science that allows for a systematic, critical yet open discussion of spirituality within its institutions. Otherwise I would see the danger of two cultures, or rather a mainstream culture and a counter-culture, beleaguering each other and in a worst case scenario even fighting each other.

Why did we have this convoluted development in the first place? Why do we have to struggle for notions that were quite simple and ordinary at the beginning of the scientific development, notions that were discussed by authors such as Roger Bacon or Hugh of Balma? Why is it that very likely most of my readers, even the well read and knowledgeable ones, will never even have heard about this and why will, certainly, the scientifically minded of my readers find most of what I have written so far more like science fiction than scholarship, unless they have intimate knowledge of the time and the texts I have been talking about? Why do I have to resort to a kind of archaeology of ideas in order to illustrate my argument and make it plausible, I wonder? These are exactly the kinds of questions we have to answer if we want to proceed. Here we find the tension between doctrine and experience as mentioned in the previous chapter.

3.2 Dogma, Doctrine and Experience

My central thesis is this: The historical process of enlightenment is mainly pitched against doctrinal bossing around on the part of religious authorities.³⁰ Religious authorities, in the West the Christian churches, were quite successful in quelling the potential threat arising from a merry movement of mystical theology and self-reliant

³⁰Things are, of course, always a bit more complex, and I am trying to simplify. To do justice: Theology itself can be seen as a kind of enlightenment movement within limits, using reason, logic and argument against simplistic faith and unsound reasoning. This can be seen as early as the arguments between Abelard and Saint Bernard, and also in modern theological disputes, for instance, between Leonardo Boff and the Congregation of Faith. Theology has always been on the side of reason when it was pitched, for instance, against magic (Heimbrock 1994). It seems to me that the problem of modern day theology is that it has bought into the general positivist mainstream too much and is also losing its spiritual core, a situation that the well known German theologian Karl Rahner surmised in the adage “The person of the future will either be a mystic or he won’t be at all.”

philosophy. The great mystics of the twelfth century, Saint Francis and Saint Dominic, had been integrated as founders of new orders into the church, and those new orders operated well as basins for all restless spirits thirsting for experience, of which there were many during those restless centuries (Grundmann 1995). Through the victory of the papal line within the order of Saint Francis over the spiritual tradition of the founding father himself, the order had lost its political and social spearhead (Burr 1976; Manselli 1996; Moorman 1968). Divergent opinions – Roger Bacon is a good example – were sanctioned. Such a scenario is also likely, if not historically documented, for Hugh of Balma. With Eckhart we know that the archbishop of Cologne, following some accusations, tried him for heresy. Eckhart was infuriated and made an appeal to the papal court. Travelling to his appeal at the Pope's court in Avignon he died in 1326 (Koch 1930, 1959). Good for him, for he would have experienced another insult: some of his teaching was condemned.

These examples show what has been said repeatedly: The church was never happy with her mystics, or certainly not initially, and with many not at all. The mystics felt obliged through their experience to speak out against what they saw as excesses of power, exhibits of undue wealth, distortions of teachings, or a superficial skeleton of doctrine with no experiential flesh. We can observe a repetitive pattern in the history of the Christian tradition: Spiritual experience happens in single, gifted individuals, sometimes also in groups, and thereby enlivens the teaching. Often even doctrinal structures are widened to accommodate the experience. Without that experience the doctrine withers and becomes unintelligible. It then appears like a scaffold that is built around a non-existing building, without purpose.

Let's illustrate this by an example that is pivotal for the negative reputation of church history. I know that this example is a tricky one and I will likely fail to elucidate it in full. But at least some aspects might become clear thereby.

Every now and then we find extremely irritating passages in the gospel, difficult to understand and quite annoying. For instance this one:

If your hand tempts you to do wrong, cut it off; it is better for you to go to life mutilated than into hell with two hands, into the fire that never dies. And if your foot tempts you to do wrong, cut it off; it is better for you to go to life mutilated than be thrown into hell with two legs. And if your eye tempts you to do wrong, tear it out; it is better for you to go into the kingdom of God than into hell with two eyes. (Mk 9, 42–48)

This passage which is quite cryptic and difficult to understand seems to illustrate a central experience that can be found in all spiritual traditions one way or another. Whoever starts walking on a spiritual path will not only encounter joy and happiness, but will also find barren roads, obstacles, desert, and dryness. In the stories around the life of Jesus this experience is told right at the beginning of all synoptic gospels under the heading "Temptation in the Desert". The "tempter"³¹ wants to

³¹The tradition calls this tempter by his Hebrew name "Satanas – satan" and thus treats it as something coming from outside. This gives rise to misunderstandings. In fact I think it is more useful to understand this experience as a projection of inner states into the outer world. In that case the "tempter" would be our human nature itself which tempts us to seek out shortcuts or leads us on

tempt Jesus in those stories, after a long period of fasting and solitude in the desert, to do things that would constitute an abuse of his spiritual power and treason of his mission: to fill his own void and still his hunger (instead of being filled); to force a decision about his status by jumping down into the depth and provoking a mysterious rescue that would also underwrite his status; in general to misunderstand his mission as a banal attempt to seize power.

The later mystical tradition used the term “lack of consolation” (Ignatius of Loyola) or “dark night of the soul” (St. John of the Cross) for such situations (Saint John of the Cross 2002; Fleming 1978). In iconography we know of the temptation of Saint Anthony in the desert, painted by Hieronymus Bosch in a rarely approached somberness.

The following reality seems to be addressed by it: The initial spiritual experience, as big and life changing as it may be, is always only a beginning of a long path. The experience needs to find shape and needs to be expressed in life. And the environment for this will not always be compatible with it initially. This will produce conflicts and friction. Perhaps the profession in which we work is less than conducive to inner peace. Perhaps the economic situation demands that we use all our resources to secure sustenance and livelihood so that it seems we don’t have enough time for spiritual growth. Perhaps the family constellation or the political situation creates difficulties. Perhaps a fragile, spoilt, or harsh personality has to be re-educated into becoming a good vessel for the experience and a good instrument for expressing it. Anyway, spiritual experience alone won’t do. All spiritual traditions teach this. Moreover, such experiences often have quite an imperative stance. Not only do they contain a promise, they also bring a challenge.

More experiences won’t come before the challenge is met. Tasks need to be fulfilled and jobs need to be finished first. This requires determination, decision, and a deep breath. It is easily possible that “one of two eyes”, “one arm”, “one foot”, or one’s life in general, stands in one’s way. One is distracted and is tempted to look elsewhere, perhaps at quickly getting rich, power that offers itself, reputation that is easier to gain by other means. Perhaps one is inclined to hope one can indeed serve two masters, to walk a spiritual path with one arm and one leg, with the other half following other goals, such as increasing wealth, power, influence, honor, reputation, etc. Those images in the gospel address a big danger of the spiritual path, namely the danger of separation. Unity and unification is an integral part of spirituality – as leaves belong to a tree, wetness belongs to water, or light belongs to the sun. Even what is seemingly deviant, apparently wrong and evil belongs to it and wants to be integrated, and ideally changed. This is a monist tendency inherent in spiritual traditions of any kind.

This is also true for the Judeo-Christian tradition that is frequently misconstrued as a dualist teaching. The creation myth that repeatedly affirms that God finds everything he has made “good” is one important example. One central passage in

detours. Since whoever experiences this will experience it as alien to his or her own nature, guiding one away from one’s original path, we tend to use a name that suggests this is something coming from outside. This has given rise to grave misunderstandings.

Isaiah says: “I am the Lord and nobody else; there is no God besides me... I am the one that creates the light and makes the darkness. I make salvation and create the misfortune. I am the Lord who makes all this”.³²

This is a difficult text, to be sure. But it transports a very important impulse: To underline the unity of being and thereby the unity of the spiritual path. Therefore, it is the aim and the task of this path to also integrate the deviant sides, the “noxious” and “evil” aspects of our nature and our personality, of our times and history. This does not mean we have to ignore it. On the contrary. In the quote above it is quite clear that the respective limbs are a reason for concern. Whatever causes this concern is identified and called by name. And quite violently the text talks of “tearing out” and “chopping off”. Would that not indicate division rather than integration and reconciliation? It seems to me that the very clear, even violent language is intended to indicate that we need to be very clear, decided, and outspoken regarding this evil, opposing, and life threatening reality. Integration and overcoming does not happen by ignoring mistakes, brushing over what is wrong and overlooking crimes. For our personal lives this means that we need to be well aware of our shadow side, that we need to know our weak points and where we might succumb to seduction (taken in a much wider than the usual sexual sense). Nevertheless, the general gist of this whole gospel episode is to point out that it is *oneness* that is intended. Only if we are willing to commit to the path *completely*, as a whole, will we have a chance to succeed. Only if we do so without side contracts and with no second thought, radically and undivided, will we progress. This is what I take to be the background and the meaning of this story. It will only be understandable if one has, at least partially, access to the experiential reality behind it. Else it will only sound brutal and incomprehensible.

But exactly this happened a lot during the history of the church. Representatives of the doctrine have tried, rightly from their point of view, to keep the teaching clean. They tried to protect their teaching, against dualist tendencies particularly and to ban ideas that did not conform to the dogma. This protection was intended to help the monist impulse of the tradition, monist in the sense that there is only *one* way and not one that consists of an inner-spiritual path and another, exterior-worldly one, or that there is only *one* absolute reality and not one that has divided itself into a good and a bad principle. Such dualist tendencies were always around. Saint Augustine, one of the major church fathers, originally also belonged to such a dualist sect, manichaeism, which was very popular throughout the whole Roman empire.³³ Dogmatic formulations and teachings were not really successful in preventing such dualist tendencies from creeping in and staying alive and well.

³²Is 45.5.

³³See *The Gnostic Gospels* (Pagels 1979) for a good introduction to the antique sources and *The Heresy of the Free Spirit in the Later Middle Ages* (Lerner 1972) and *Religious Movements in the Middle Ages: The Historical Links between Heresy, the Mendicant Orders, and the Women's Religious Movement in the Twelfth and Thirteenth Century, with the Historical foundations of Germans Mysticism*. (Grundmann 1995) for later situations.

During the eleventh, twelfth and thirteenth centuries they re-emerged in the movement of the so called “cathars”, the “purified and pure ones”.³⁴ Suffice it here to say that in that movement exactly that kind of dualism was taught that is *not* really helpful on a spiritual path, at least according to the gospels, the church, and the whole Judeo-Christian tradition. Cathars believed in a good and an evil principle and in those followers of the good principle that had purified themselves from everything worldly that was actually part of the evil principle. That is why they called themselves the “pure ones”, and they distinguished themselves from all others who had not developed to this level as yet, and therefore were part of the world and destined to condemnation, i.e. the rest of the world by definition.³⁵

One had to look quite carefully to see that this teaching was not compatible with the doctrine and the life of the church. This life of the church was all but holy, pure, and spiritual. Hence it was easy for the “cathars” to position themselves as the better Christians. However, it was clearly visible after some scrutiny that the cathars’ teaching was directly against the monist impulse of the spiritual tradition of Christianity. The most obvious challenge was clearly to the power and the sovereignty of the church. It comes as no surprise that a struggle over this power was on the horizon.

A central figure in that struggle was Saint Dominic (died 1221). We know quite well from historical sources that he himself and his early followers employed a spiritual strategy in confronting the heretics.³⁶ In those days they relied completely on the power of their preaching and the lived example of their lives. Both were nourished by their own experience: “contemplata aliis tradere – passing on to others what we have seen in contemplation” was their motto. They hoped to convince through their actions, were quite clear and also lenient with those who converted back and especially with the simple folks. Often they won their verbal battles, pointing out some of the double standards of the pure ones too. The doctrinal formulations of those days were clear in their spiritual relationship to the tradition. The Lateran Council that convened in 1215 to discuss the Cathar heresy decreed clearly: There is only one god, and not anybody similarly powerful, or a similarly powerful satan. All demons, angels and other beings are created by him and are hence his creatures, necessarily less in power.³⁷ This was an important doctrinal formulation that was directed against the heretic claim that there are two equally powerful gods at work, one positive and one negative, as preached by the Cathars.

³⁴The notion is derived from the Greek “katharos” meaning pure. The cathars saw themselves as the pure ones, as compared to the official church and the clergy.

³⁵Does that sound familiar? Some of today’s political talk is closer to the heretic teachings of those days and can certainly not recur to any God in the sense taught by the Judeo-Christian tradition.

³⁶It is interesting to note that the term “heretic” is derived from the Greek “hairein” meaning “to take something out”. It denotes the fact that the typical heretic takes what he or she likes out of the whole and makes it a teaching (Hinnebusch 1966).

³⁷Very good accounts of this time with all original references can be found in *Ad Capiendas Vulpes. Die Ketzerbekämpfung in Südfrankreich in der ersten Hälfte des 13. Jahrhunderts und die Ausbildung des Inquisitionsverfahrens*, (Kolmer 1982) and *Die grobe Ketzerei. Verfolgung und Ausrottung der Katharer durch Kirche und Wissenschaft* (Baier 1984).

However, this spiritual way of dealing with a heretic sect which was initially favored by Saint Dominic and his early followers and was quite effective was gradually overshadowed by a more doctrinal approach. This meant that the heretics were treated much more harshly as the fight went on, often with direct or verbal reference to the gospels. In the early days of fighting the heretics, periods of repentance were set during which everyone could convert back, with normally not more than a particular pilgrimage to make and some public confession. Later on, this was followed by the stake which everyone was submitted to without distinction of sex, age, or personal involvement, with the doctrinal argument that it is better to burn the body than let the soul burn in hell. Even more disgusting is the crusade against the cathars which bestowed a general remittance of sin to everyone taking part in that slaughter, also for all sinful deeds committed during this crusade. With a knighthood mostly interested in violence and plunder, with little spiritual interest and quite simple minded religiously, this meant a free ticket to brutality. It is not surprising, therefore, that one of the leaders of that crusade against the heretics in Southern France, Count Monfort, had a whole church burnt down in which a village had fled seeking asylum. He did that with the cynical comment: "Kill them all. God will know the ones that belong to him"(des Vaux-de-Cernay 1996).

This is a very striking and brutal example of what happens when a spiritual experience and its paradoxical expression and imagery is misunderstood, taken literally – and not seriously – for lack of one's own spiritual experience and insight, and abused by pure doctrinal understanding. It leads to horrific excesses of inhuman acts. We saw: At the heart of the text is the insight that life and world are one, the experience that it is difficult to live in full commitment to this experience and what it demands, and that it is important to be radically decided and committed to the spiritual path. The texts use violent imagery to make this clear and to tell everyone that this is not about kidding around. The doctrinal impulse which developed out of that insight was a monist tendency to understand reality, life, the absolute reality as one, not two. To use this doctrinal impulse to guard a vessel that would allow this experience to come to life again and again is quite understandable. However to then use and monopolize this doctrinal impulse without the proper experiential background and understanding, using power and even violence to enforce it, was certainly not the original intention of the doctrinal formulation, let alone of the texts and the experience they expressed. The tragedy arises from the misunderstanding and taking such texts literally instead of seriously. Do you recognize this fallacy? It is quite similar to modern day fundamentalists' misunderstanding of biblical texts because they do not understand that the texts are not simple propositional structures but complex images that transport experiences, and not simple descriptions of reality. It is similar to someone offering us his watch, when we ask: "Give me some time to think", or taking out a napkin intending to wipe the blood off a 10 dollar bill if we are given it by someone saying: "here is your bloody money". In the same vein, no one would try and kiss the next passer-by in order to find a prince after having listened to the fairy tale, or seek out the place where foxes and hares wish each other good night in order to meet Rumpelstiltskin, let alone trying to meet the guy in the first place.

Most of those problems stem from the inability to understand the difference in categories of texts. The sad thing is that we still have to deal with these problems after roughly 300 years of critical textual readings of the gospels on the Christian side, more than 2000 years of biblical scholarship in the Jewish tradition, and roughly 900 years after Abelard exposed the conundrums one gets into if taking those texts literally. Why is that, I wonder? And you might wonder with me! Perhaps this is so because we mistake spiritual and doctrinal texts, in the absence of experience, for reports of factual, outer reality, when they are describing not a lesser, but a different reality, namely inner reality.

If we overlook this we only have a doctrinal skeleton. And often it was that skeleton that dragged itself through history and which then was revived by saints, mystics, reformers, and inspired people. And it will come to life again whenever the original experience is relived and expressed anew. It would be the genuine task of doctrine and dogma to support and guard such experiences, to offer a sacred place for them to happen ever anew. For a modern, educated mind that has gone through the process of Western enlightenment and who does not have its own experiential access to this doctrine, it must appear like a scarecrow that shakes in the wind making even the crows laugh. And indeed: Without the life of experience, doctrine alone is a skeleton that does not any longer serve life but should be laid to rest in a funeral of the best class.

3.3 Doctrine, Enlightenment, Science

This funeral has in fact already taken place during the Western enlightenment. This complex and historically divergent movement has finally achieved what was already visible in the free spirits movement of the middle ages: freedom from doctrinal bondage and thereby freedom from dogmatic slavery by the churches. Science as a social and intellectual movement was of paramount importance in that development and emancipation from dogma. Without several hundred years of scientific development this enlightenment and this powerful force of freedom would not have been possible. Without the many unknown teachers at many European and other universities who taught critical thinking, analysis of logical conundrums, and skeptical questioning to their students, the big minds who are the visible face of enlightenment and of this power of science would not have been formed. Roger Bacon could not have written what he had had he not received his lessons from a completely unknown Franciscan friar, Adam Marsh, and from Robert Grosseteste. William Ockham, whose radical criticism of previous teachings was seminal for the development and emancipation of the science to come, is not conceivable without the spiritual tradition of the Franciscan order that formed him. The long sequence of thinkers and teachers that dates back to the middle ages and from there into antiquity has finally led to freeing the mind from doctrinal precepts of the churches. Mainly, the well known figureheads such as Ockham, Galilei, Bruno and others are used to demonstrate this. But it is more appropriate to see a huge river,

often flowing below ground with a lot of tributaries from different quarters. Frequently the decisive figures were clerics and monastic thinkers that gave decisive impulses to that movement of enlightenment. An important instrument of general enlightenment, even though not conceived as such, were schools open to everyone, founded as early as the Middle Ages by the chapters of the respective cathedral churches, later on by the orders of Jesuits, Sisters of Mary Ward, and others, which led to many new schools and even Universities being opened during the Baroque age. Without having to paint the whole history the result is clear: intellectual education for children of all social classes, development of thinking and critiquing cannot be harnessed by any doctrine in the long run. Start the process of education and thinking and you will kill doctrinal slavery. Kill education and thinking and you will have slaves to doctrine.³⁸ Science and church dogma are incompatible in the long run and had to stake out their claims, similar to the political and clerical powers some hundred years earlier.

Now comes a decisive turn in the argument: *Whatever it was science freed itself and the intellectual minds from was not spirituality and its essence, but the doctrinal building.* When Nietzsche pronounced God dead and a new Man born, he referred to exactly this development: the death of a doctrinal scaffold for the sake of a new type of man who develops himself and herself out of his or her own experience, ever anew. The freedom from doctrinal restrictions that was a result of Enlightenment refers to this freedom and emancipation from religious dogma that uses power, force, and violence to enact its goals in the absence of individual or collective experience and is completely ideological in nature.

This has led to a huge misunderstanding: Modern day intellectuals think they have solved the problem once and for all by relegating religion to the private space of piety, having expelled it from the public realm, and especially from the agenda of intellectual scrutiny and science. They think by debunking ideology and doctrine they have also solved the problem of spirituality. However, they are wrong. Exactly this is what has *not* happened. Spirituality is a human need, a basic one at that, and cannot be discussed away, just as sexuality cannot be. Assuming that the problem is solved and letting this side of human nature drift out of the public realm into private niches is not really serving the process of Enlightenment.

Those “final topics” – the question of a purpose in life, of vocation and calling, of values, morals and what happens if we fail them – they cannot be pushed away. They come back in all sorts of clothing and fancy dresses. One of those fancy dresses is scientism, the belief that science is the new religion. (A baser version of a new religion is quality assurance, the belief that by applying rational processes we

³⁸In that respect we should be quite critical about our own educational processes in the West as they seem to produce more and more reproductive and procedural knowledge and less and less the capacity to think critically, to analyse, and to question. In the same vein: what does it tell us to learn that on the Arabic Peninsula over the last 100 years roughly the same number of books were printed as are printed in Spain in one year? On the other hand, what do we make of the fact that a staggering percentage of Americans are analphabets and incapable of reading, relying solely on TV for their general information?

can control life, risk and everything; I won't go into details, though, but invite my readers to do this as a little private exercise of critical thinking the next time they are confronted with a quality assurance tool or form).³⁹

3.4 Scientism

Science, in my view, is a systematic and collective way of making experiences and guarding ourselves against errors.⁴⁰ During its development science has invented various ways to improve this method of guarding against errors. This practical impulse was gradually extrapolated beyond the realm of science proper. As the natural sciences grew in importance and outreach the political thrust of the enlightenment movement grew in parallel. This impulse was originally directed towards restricting both the absolute power of the monarch and the similarly absolute power of the churches in questions concerning faith and belief. Important scientists were normally also important drivers of the enlightenment. We saw that already for Roger Bacon. It was true for William Ockham, certainly for Francis Bacon, Leibniz, Kant, to some extent also for Newton, for Hume, and many others. The farther the explanatory power of science seemed to reach, the smaller the influence of the churches seemed to grow. This was a simple consequence of the fact that a lot of seemingly supernatural phenomena could be now explained naturally, leading to a disenchantment and demystification. Thus, lightning was downgraded from God's punishment to an electrical discharge. Although still quite uncontrollable initially, it lost its dark threat through rational understanding of the principal mechanism, and lightning rods deflected its devastating power. Infectious diseases developed from a scourge of God to a tractable problem of contagion. And thus Auguste Comte was able to say at the turn of the nineteenth century that humankind was developing in phases. The first one, that of primitive magic and voodoo cults, was followed by the second one, religion, and then finally by science. This proclaimed the basic idea that science is not only a method to discover some truth about our world, but also a general world view, a basic philosophy, or rather a modern, rational religion. This view we call by the name scientism, taking up a term coined by William James and Edmund Husserl in the nineteenth century.⁴¹

Many of the bright minds in modern natural science were declared materialists, believing that only matter and the laws operative in matter are existent and could be

³⁹I have written a sketchy account of this in *Hurra – wir haben eine neue Religion! Über Qualitätssicherung* (Walach 2009).

⁴⁰I have elaborated on this in my textbook on theory of science for psychology (Walach 2013).

⁴¹The term "scientism" was coined by William James who was the first to use it (he was first in many things!), apparently in letters since 1890 (Andreas Sommer, personal communication, 2013). It was made popular by Edmund Husserl who used it in his critique of a narrow minded scientific outlook described in *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy* (Husserl 1970, orig. 1909).

scrutinized by science, and that would be also sufficient to explain the world.⁴² Previously, Newton, although not a materialist himself, laid the groundwork for a materialist universe that could be understood as a clockwork of mechanical causes, similar to a complex time piece or machinery, that would have to be wound up and set in motion only once by its maker at the beginning and then would continue by its own inherent mechanical laws (Cohen 1980; Durham and Purrington 1990; White 1997). Thus, science as a method was slowly converted into science as a belief system. If earlier a God was needed to explain the world, in the nineteenth century a completely deterministic universe, understandable and rationally analyzable with reference only to mechanical laws, was conceivable. God's role was to push the first button and then he could go into intellectual retirement. Today we can conceive of a universe bootstrapping itself into existence, out of a fluctuation of the quantum vacuum, and perhaps falling back into that vacuum (Jantsch 1980; Davies 1987; Penrose 2004). To be sure, those modern notions are no less abstract, speculative and primordial than the good old notion of God. However, there is a decisive difference: Those modern notions are derived from well-tested and analytically satisfying modern scientific theories that can be described and analyzed in formal language. Slowly, and without many people noticing, science, and especially natural sciences such as physics, chemistry, and biology, have gained the importance of a world-view, at least for those who are willing to believe that problems still unsolved will be solved in some near or farther future and who are willing to extrapolate from past experience that those existing problems will be solved similar to earlier ones. Add the faith that the promises of science to create a new and better world will come true, and forget about the fact that you have to believe some basic assumptions or simply assume them to be true, and you have all the major ingredients of a new religion.

⁴² Particularly Emil du Bois-Reymond, a physiologist in Berlin, who became very influential. He formed a secret pact together with Brücke, the later physiologist in Vienna and teacher of Freud, and with others to explore the materialist foundations of consciousness, as he said. Thirty years later he declared that this program was not successful and will never be. Nevertheless the stance is typical for the up-beat natural scientists of the nineteenth century. See the original document in *Jugendbriefe von Emile DuBois-Reymond an Eduard Hallmann* (Du Bois-Reymond 1918, p. 108): "Brücke und ich, wir haben uns verschworen, die Wahrheit geltend zu machen, dass im Organismus keine anderen Kräfte wirksam sind, als die gemeinen physikalisch-chemischen; dass, wo diese bislang nicht zur Erklärung ausreichen, mittels der physikalisch-mathematischen Methode entweder nach ihrer Art und Weise der Wirksamkeit im konkreten Falle gesucht werden muss, oder dass neue Kräfte angenommen werden müssen, welche, von gleicher Dignität mit den physikalisch-chemischen, der Materie inhärent, stets auf nur abstossende oder anziehende Componenten zurückzuführen sind – Brücke and myself, we formed a pact to make known the truth that no other forces are operative in our organism than the common physical-chemical ones; and that, where those are not sufficient for an explanation so far, they will have to be sought after by the physical-mathematical method in the concrete case, or that new forces will have to be assumed, of the same dignity as the physical-chemical ones, inherent in matter, always reducible to attractive and repulsive components". Nowadays, the leading scientists are also in the majority of the cases anti- or a-religious, according to Larson and Witham (1998). Whether this also means they are materialists we don't know for sure, but can assume.

In a very subtle kind of dialectics science is assuming the very authority that it has taken away from religion over the centuries. Whether this is happening through “science” as a collective process of all scientists, or whether it is a highly complex interaction between some scientists who seek media presence and the image that this presence presents, as well as the popularizations and attributions generated through this publicity, is another matter. But even without a final word on how it happens it seems to be quite clear that science is now doing what religion once did and thus has taken over a lot of religion’s functions: Science is expected to provide the basic and final explanations of the universe, to present the mythological stories about the beginning and the end, and it does this happily by providing the highly abstract and fascinating story of the big bang. Science has to provide us with authoritative decrees about purpose and optimization of human social life. And modern psychology is happy to comply with a load of contradictory, immature and sometimes very badly founded theories that can be used by everyone to take out whatever fits their own worldviews and beliefs best. Science is called upon when we discuss questions of life and the prolonging of life, and it does what most seem to want: Medicine has grown from a science of healing to a machinery to prolong life, change life, and abolish suffering. In all dire consequence it will finally abolish life in its true meaning: as an adventure of self responsibility.⁴³

Let us make no mistake here: Science has made it into the minute loopholes of our daily lives, whether we like it or not, whether we know it or not. Start your day with the clinically tested tooth paste, carry on with the perceived necessity to kill all germs in the kitchen with a disinfectant surface cleaner,⁴⁴ follow-up with some lactobacillus in your yoghurt and finally go to bed with a TV show that tells you about a new scientific development that will finally change your and everybody else’s lives. The final argument about the power of scientific mythology is the quite dubious political decisions founded on alleged scientific proofs. Remember the US Secretary of State Colin Powell in his iconographically extremely powerful presentation before the United Nations arguing for a war in Iraq? What did he show? Images? A bible? No: a simple glass vial that should signal scientific dignity and that was one of the decisive arguments in what we now know was completely ill conceived, ill informed decision based on a huge edifice of lies and misperception. I am not suggesting that this was scientific. I am suggesting that science as a modern mythology is penetrating all elements of our lives, and hence its elements and epitomes are perceived as powerful. The glass vial Powell presented was perceived as being as powerful as a tooth of Saint Berengar or a toe nail of Saint Ansgar might have been perceived during the Middle Ages. And with the same basic foundation: the belief, faith, and trust of people. (Where exactly did we say the development is to be seen? We lost ourselves, it seems, in the convoluted staircase of history!)

⁴³The funny thing here is that medical methodologists see the alleged progress within medicine much more critically than the would-believing public. See Gonon et al. 2012; Ioannidis 2005.

⁴⁴Which is in fact scientifically, properly speaking, quite problematic because it contributes to our growing problem of resistant germs See, for instance, Foxman 2010.

The vacuum that has been generated by the expulsion of the Western notion of God from the public space, and as a consequence the relinquishment of religion as a public and central power, will be filled, willingly or not, by exactly that power that helped generate that vacuum in the first place, modern science itself. To make myself quite clear: This is not a critique, not a judgment, just a description and a prediction.

Hardly anyone in the ranks of science seems to be clear about this development. If asked, scientific protagonists hasten to emphasize that science has a limited scope and competency, that the final questions of life and death are beyond science, that science is unable to provide values, and so forth. Factually, all those statements are correct. But historically they are all wrong. We can see that in the simple things of life. Science and economic profit have taken on those roles that religion has been pushed out of. In a subtle dialectical process now science has to provide what it promised during the process of enlightenment that helped heave religion out of its formerly powerful position: to allow for a human, enlightened development that is in the service of life in general and is helping to shape a human society.

Therefore, science now has the task of getting on with enlightenment, and to extend it towards clarifying its own boundaries and its own potential for ideological enslavement. If science does not want to obstruct and destroy its own foundations then it has to enlighten itself and the public about these very foundations, moving on with the process of enlightenment. This then will be the historical and systematic moment at which science will have to restrict its own explanatory power, when it will be applied to its very own process. This, I think, will be when spiritual experience comes into play and will have to take up a decisive place in the whole framework of knowledge and insight. Why? Because the final foundations science is resting on cannot be provided within the framework of the system itself. It has to come, necessarily, from another systemic level. This can be the level of assumptions, or absolute presuppositions as the philosopher Collingwood had called it, and this is what happens normally. We then act out of sheer faith in the final assumptions science is working from. And this is what by definition is called a religion. Or else it is provided by what the big minds in science have seen through an intuitive grasp of reality, out of which they have acted. And this is identical with what I have termed spiritual experience. Spiritual experience, it seems, is coming back full circle.

Thus, my argument reverts to the initial point of departure: Science has to cash in the check it wrote and start an open inquiry into the phenomenon of spiritual experience and spirituality, openly, critically, and without prejudice. Spiritual experience was at the root of religion. Doctrine was its vessel. This vessel was largely destroyed. Partly by religion itself that forgot to fill it with the experience it was meant to hold, partly by the process of Enlightenment, driven by science to a large degree. Now science has inherited the legacy and will have to deal with the basic phenomenon. This, in my view, will mean taking the phenomenon seriously and scrutinizing the epistemological claim made by spiritual experiences.

In this framework, what is necessary now is exactly what did not happen 750 years ago: the study of spiritual, inner experience as a modality of knowledge within the remit of a comprehensive science, to take it seriously, to scrutinize claims, to

discuss how we can gain knowledge from it, if at all, and to potentially integrate spiritual experience into the canon of scientific method. How such a post-modern science that is actually getting on with enlightenment and is taking spirituality as one of its topics seriously would look will be discussed in the following chapter. There we will also have to clarify whether such a development is really necessary and what is meant by a non-doctrinal, secular or non-dogmatic spirituality.

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Chapter 4

Spirituality, Taboo, and Opportunity for Science

Science, in her thrust for knowledge, has broken nearly every taboo of human societies. The taboo of sexuality has been breached by the studies of Freud and, later, by the laboratory experiments of Masters and Johnson. Medicine is in the process of breaking a couple of other taboos: The possibility of, in principle, being able to meddle with genetics is breaking the taboo of the invulnerability of individuality. Artificial insemination is breaking the taboo of tying generating offspring to a heterosexual act within a loving relationship, as well as the biological boundary for becoming a parent. The limit of life is in the process of being redefined from an immensely precious and finite to a disposable entity, with all the social and ethical problems arising from this process. Spiritual experience, however, and spirituality still seems to be taboo, at least with respect to European culture. American culture has been, historically speaking, more strongly religious. This is probably the result of the process of immigration in which many puritans sought America as the Promised Land, making it a country of religious fervor and fear of God. But this religious heritage has not changed the status of spirituality in the American tradition of research compared to Europe, for in the US spirituality is frequently seen as an antithesis to religion and therefore as a move away from traditional religion (Koenig 2008). Religiosity, however, is the private decision of the scientist, not a topic for science. According to a survey of the psychologist of religion, Larson, the vast majority of leading scientists of the National Academy of Science of the US call themselves non-religious: 93 % do not believe in God, 92 % don't believe in the immortality of the soul. Of these, only 21 % are agnostics, that is, people who say that God cannot be known and don't think that this topic is of any relevance. Seventy-two percent, however, are positively non-religious, meaning they are convinced that there is no such thing as a transcendental entity. Those who are believers are mostly mathematicians and physicists; least likely are biologists (Larson and Witham 1998). To be sure, these are only scientists within the top echelon of the National Academy of Science in the US. There are surely many others that are engaged in other circles, and perhaps even in counter-cultures. With the church you find a lot of opinions in the rank and file of the normal people, but the hierarchical

stronghold stands fast. It is similar with science: There are many opinions within the community of scientists, but the top echelons of the scientific community hold on to what they see as a “scientific world-view”, which carries with it, unreflected and very often subconsciously, adherence to a materialist world-view.¹ The enlightenment movement has been entirely successful for those who are working within and for it.

This leads to a situation that has been instrumental in making spirituality a taboo: If scientists as individual human beings have been convinced of the “death of God” which has been promoted by the enlightenment movement, and if they understand this “death of God” not as the death of a doctrinal entity, i.e. of an unnecessary notion or an ideological structure of power, but as the final endpoint of a mythological type of reality which we can explain otherwise, then there is indeed no reason to take spirituality seriously as a topic for science. In such a case only psychological reductionist research is possible in the sense that we want to understand what motivates people to believe in an otherwise irrelevant entity, what benefit it may bring in the sense of evolutionary fitness, health promotion, or societal coherence.² This means that science might want to understand why human beings are still religious in a time and era where science has clarified so many issues already, why they are still inclined to stick to superfluous notions such as God, survival after death, and so forth. But then it only makes sense to understand the psychological functions such a type of religion fulfils, what social and societal consequences will follow from these functions, and which social conditions are responsible for them. Scientists that follow another approach and thus implicitly admit that they find spirituality useful in its deep sense, place themselves outside of the implicit consensus of the scientific community. Thus, seen from the vantage point of mainstream science, there can be only one collective scientific opinion about those who are still convinced that there is such a thing as spiritual experience: They are adhering to a romanticism long gone, and will also, given more time and insight, understand that such experiences are just the result of a neurological system gone idle.

Perhaps it is useful to point out at this point that the “death of God” as a doctrinal entity is not identical to abolishing a whole realm of experience. Perhaps it is also useful to remind ourselves that clouting the power of the doctrinal system was important, even necessary for the success of enlightenment. Nevertheless, and this is the paradox, it can be scientifically meaningful, even necessary to take the realm of experience that has been at the root of this doctrinal system seriously and to revisit this experiential foundation. The implicit consensus of the majority of scientists seems to be targeted towards the doctrine and the outer form that has been

¹Epitomized in pieces such as *The God Delusion* (Dawkins 2006), and in a classical and reflected way by Bertrand Russell (1975) in *Why I am not a Christian, and Other Essay on Religion and Related Subjects*.

²In that sense such topics are indeed being studied scientifically, for instance the evolutionary benefit of being altruistic, or the role of religion in creating social coherence, or the question whether being religious produces health benefits (See Henrich et al. 2010; Norenzayan and Shariff 2008; Schwartz et al. 2003).

deconstructed by the enlightenment. But hardly anybody is asking the question whether there might not be an experiential foundation to this which has its own relevance and needs to be taken seriously.

If we now focus on spiritual experiences³ as potentially important, then we implicitly admit that what is intended in spiritual experience has possibly some reality to it, and that the respective experience itself might be of epistemological relevance. By doing that, however, we also continue the project of scientific enlightenment and critique, and are transferring it into the realm of spirituality.

Before we can do that we need to clarify three presuppositions: First, *the ontological presupposition*: What will be and can be the referent⁴ of a spiritual experience? What exactly is this “reality”, “being”, or even “absolute being”, and can such notions make any sense at all in a post-metaphysical and postmodern era like ours? Second, *the epistemological presupposition*: Exactly how can we speak of knowledge and experience in this modality of inner or spiritual experience? Third, *the instrumental presupposition*: How can human consciousness possibly have such experiences of an absolute reality at all, and in principle? Let’s look at these presuppositions, starting with the last, and let’s see how far we can get in clarifying them.

4.1 The Question of the Reality of Consciousness

The question of the reality of consciousness is generally answered using three categorically different models, none of which is really satisfying in my view. This is my motivation to introduce complementarity as a fourth alternative which perhaps satisfies some minimal conditions.

4.1.1 Idealism

The idealistic position assumes that consciousness is the final and primary entity in the universe and everything else can be derived from it. Matter then would be something like crystallized consciousness. The idealistic tradition of philosophy in the west has repeatedly put forward such an opinion, and such philosophies have united themselves with religious types of thinking into various amalgams. Starting with Parmenides and Plato in antiquity, followed by Plotinus up to the German idealistic movement of Fichte, Schelling and Hegel, and Charles Sanders Peirce’s semiotic idealism, this type of thinking has, time and again, had success. Even some modern physicists adhere to such an idealistic worldview. They point out that looking at the

³Some may want to use other terms such as “noetic experience” meaning the experiential preverbal understanding that comes from such a type of inner experience. I stick to the term spiritual as explained in the first chapter.

⁴i.e. what is intended by the term; the reality addressed by it.

measurement itself is a precondition for determining the state of matter itself, and thus consciousness is prior to matter (Goswami 1990, 1995; Squires 1993, 1994; Stapp 1993). The whole philosophical tradition of Hinduism can be reconstructed as idealistic philosophy, and may have influenced Greek antiquity as well, and hence this tradition is still important (Akhilananda 1960; Rao 2005; Harris 1982). Followers of transpersonal psychology who are convinced of a reality beyond the individual material world often have an idealistic worldview, at least implicitly. One of the early protagonists of this movement, Ken Wilber, has stated explicitly in various places that his own system is similar to those of Schelling and Plotinus, probably because both Wilber's and Plotinus' systems were originally derived from Eastern Hindu modes of thinking.⁵ All these models are extremely plausible as long as one is willing to share the presuppositions and ignore the major weaknesses. The presupposition is that of an independent thinking subject that has immediate access to experience, which is the starting point of each idealistic philosophy. In the language of German idealism this is called the transcendental vantage point. The main weakness is the question of how such a system can make plausible a sufficient notion of matter. One can, of course, adapt a different terminology and call the resulting philosophical model "integral", as some neo-Indian thought and Wilber are doing, professing that this has then transcended idealism. But the general problem as to actually how material reality relates to this first principle, consciousness, is not solved. The naive immediacy of a thinking autonomous and free subject has been called into question vis a vis the political developments of the twentieth century, the philosophical debates of a postwar thinking, and vis a vis the discoveries of neuroscience. The self-conscious individual is more the big scientific problem of our times than the starting point. The reiterating of the statement that every scientist is a thinking and partially free subject that decides to study a certain question and to do science doesn't help here, for the reconstruction of science as a social process has shown how each individual scientist is part of a social, ecological, political, and economic process of a community. The subject of science is not the individual scientist, but the scientific community as an entity (Fleck 1979; Collins 1993; Latour 1999). Neuroscience has shown how many processes in our brain are active without us ever noticing them or even without us being able to notice them in the first place.⁶

The conditions for an idealistic system free of contradictions are not very good in postmodern times. But even if we were to accept the presuppositions, there is still the unsolved problem of how to make this categorical step from purely mental entities to a systematic notion of matter that is compatible with modern scientific knowledge. If I am not mistaken, all idealist systems have stumbled over this problem. It is

⁵As I stated: Wilber changes his outlook quickly, adapting to new points raised. Thus, he has long ago stopped being a protagonist of the transpersonal movement but his thought continues to influence it. With all the changes in his system and how he calls himself the idealist undercurrent seems to be a constant, if I am not mistaken. (See, for instance, Wilber 1998, 2000).

⁶We won't follow up this discussion here as it is a side issue for the discussion. We share the argument and the comparatively plausible presupposition of neuroscience that the activity of the brain is a necessary precondition of consciousness, at least in the way we normally know it, see for instance Tremblay (2007) and Koch (2004).

precisely this fact that idealistic systems are incapable of developing a substantive notion of matter that was the reason for the movement against it which has led to rather rough materialism. This problem is also unsolved by Wilber as he only states that there is such a thing as a ladder or a nest of being that leads from material reality up to the absolute spirit or the other way round. It is one thing to state that there is a notional and factual continuity, but it is quite another thing to show this clearly and to derive it from the presuppositions made.⁷ Therefore, before someone can actually start a new idealistic philosophy, he or she should be aware of the problems of their predecessors and find a better solution to those problems that they have not been able to solve. A mere restating of what seems to be clear without showing it is the method of advertising and political rhetoric, but not that of science and philosophy.

4.1.2 *Materialism*

It is probably the insufficiency of idealist philosophies together with the blooming of natural science that has led to the situation in which materialism has become the major ontology of science in general, with more or less official backing.⁸ Materialism can be found meanwhile in many intelligent and elaborated forms, and it is only those that need to be taken into consideration here. They all have one thing in common, namely that they believe there is only one basic entity in the universe: matter. This develops and behaves according to a series of well defined and well understood theories that describe the differentiation and generation of material multiplicity from a general unbroken symmetry of the origin up to the micro level of atomic and molecular substances. These theories can also make plausible the ways in which simple structures give rise to more complex ones and how, out of the systemic ordering of the elements, holistic entities can arise.⁹ The miracle notion here is

⁷This does not negate, of course, that single individuals subscribing to an idealist position as many sages and enlightened individuals have done, such as Vivekananda, can be highly effective in the material world, and that within an integral world-view the material world is honoured in its own right; see *Learning in Depth: A Case Study in Twin 5 × 5 Matrices of Consciousness* (MacPhail 2013). But life practice and the lived world is not philosophy and does not provide in and of itself a satisfactory theoretical solution to the conundrum as to how matter should derive from spirit. It goes without saying that a materialist solution has the same problem the other way round. The fact that the majority of scientists seem to be happy with such a materialist solution does not make it truer or better than an idealist solution. It is just swapping one unsatisfactory solution for another.

⁸It is interesting to note that leading psychologists have rarely followed this trend. Brentano remained a transcendental philosopher for his whole life although he did not like German idealism at all. Wilhelm Wundt also followed a kind of parallel dualism. Jung was a follower of a transcendental monism in the vein of Neoplatonism. Freud surely adopted a materialist worldview, at least in his public writing, and it was only with the behaviourist turn and after that with the functionalist mainstream that a materialist ontology has also become the majority view in psychology. This was mainly due to the behaviourist authors, who brought clearly identifiable materialist philosophy into psychology. (See Baars 2003).

⁹Still a classic is Jantsch (1980) *The Self-Organizing Universe: Scientific and Human implications*.

emergence. Whenever material parts are placed in a systemic order and have reached a level of complexity, then new properties that have not been there previously, either explicitly or implicitly, can arise, although they cannot be predicted from the single elements of the system itself. For instance, if hydrogen and oxygen, two atomic substances that are gaseous at normal room temperature, are brought together, then at the same temperature at which they are gaseous as single substances, they become liquid. Becoming water they have all the properties which we know water possesses that cannot be derived either from hydrogen or from oxygen. As a new substance they are liquid and have a comparatively high density, high phase transition temperatures into the solid and gaseous phase. Water can structure itself, can take up a multitude of substances in solution, has its highest density at 4 °C which allows fish to survive even in frozen lakes, and so forth. All these properties are *new, emergent*, and are not derived from its single components, let alone predictable. Therefore the statement that “water is H₂O” is a reductive explanation, and as such also an explanation of a lot of its properties as long as we are willing to let *emergence* of new properties to be a new principle of explanation.¹⁰ In the same sense we can speak today, within the framework of a subtle materialist theory, of consciousness as being emergent from or a function of a systemic ordering of material elements, for instance, within a neuronal network like the brain. Thus it is not the single neuron or other material elements taken alone that carries or produces consciousness, but their structure and relationship, their functionality or being in relation to each other in the form of a network.¹¹ This stance seems to be the general consensus of neuroscientists and a large part of the consciousness research community today, even though a couple of critical voices also exist.¹²

We need not go into detailed debates here. These are already being conducted around questions such as whether and how consciousness, once it has arisen, is causally independent and can have causal influence on the material system that gave rise to it in the first place; whether this consciousness is a necessary by-product of complexity or not; and whether it has certain evolutionary functions, and so forth. For our argument here, it is sufficient to describe the lowest common denominator of all these positions¹³: Matter is primary and consciousness can be derived from matter from its systemic ordering and the lawful relationships within it. Therefore, consciousness and different conscious states, contents, and representations of

¹⁰The fact that we have not understood what *emergence* actually is and how we can understand it is quite another matter. There are some interesting ideas in Kronz and Tiehen (2002) which show that, at least within the framework of quantum mechanical formalism, emergence can be understood formally as a tensor product of two matrices that cannot be factorized, i.e. not be reduced to their original matrices. This is a mathematical expression of entanglement.

¹¹A good example is Tononi, G. (2004). An information integration theory of consciousness.

¹²See Noë, A. (2009) *Out of Our Heads: Why You are Not your Brain, and Other Lessons from the Biology of Consciousness* for a good rebuttal.

¹³A very sophisticated version of such a view is presented by Metzinger (2003) *Being no one: the self-model theory of subjectivity*, and in a more readable version by Metzinger (2008). *The Ego Tunnel. The Science of the Mind and the Myth of the Self*. Another very popular materialist account is given by Dennett (1991) *Consciousness Explained*.

consciousness are secondary to matter and ontologically irrelevant. Therefore, the materialist position, at least if one is interested in holding a coherent and consistent world-view, is not compatible with any view that is convinced that a transcendent entity, in a theological, non functional sense that is by definition non-material, is a reality and has some relevance. Therefore it is exactly this place in the whole edifice of modern natural science which needs to be scrutinized carefully.

Materialist positions, although they are quite subtle in modern versions, have still not been able to resolve all questions convincingly. Thus there are always criticisms that point these problems out and nudge towards a dualist position. For our purpose it is sufficient to take note of a couple of these important arguments. One important and unsolved problem is the problem of phenomenological subjectivity, which is also called the problem of *qualia* in philosophical lingo. This refers to the explanation of our subjective sense of the *inside* of our consciousness.¹⁴ Thereby we refer to the question of how exactly it feels to be conscious, and especially to how this subjective feeling does not seem to be derivable from an objectivist description of the system itself. Let's take pain as an example (Bieri 1995; Chalmers 1996). Even if we knew exactly how the experience of pain is produced neuronally – and we know quite a lot about it already – this would still not make plausible exactly how the feeling of pain, being in pain subjectively, arises. Even if we could look into the brain of a person who experiences pain at this minute, and even if we could see his whole pain network activated, we still haven't captured the subjective quality of his having pain at this moment, let alone understood it. The inner subjective view of consciousness, the *subjective-feeling-here-and- now-of-my-inner-experience*, this particular feeling is not completely explained by any of these theories. One is free to state that there is no real necessity to explain this and therefore ignore the problem, a popular solution for most writers in this tradition. This doesn't change the fact that some authors and thinkers are not happy about this and keep highlighting this unsolved problem. There are a couple of other comparatively technical and complex arguments against the plausibility and validity of materialist explanations, as well as a multitude of propositions of how to solve them.

Another argument against the materialist notion of consciousness has been previously proposed by Leibniz and I still find it quite important. As far as I can see it has not been refuted formally, but is still mainly ignored. If we imagine that we are a small gadget that travels around the brain or, the other way around, that we can blow the brain up so that we can walk into all its different compartments and neuronal ramifications, we would always only find material processes there, never, ever mental content. Electric currents and their temporal patterns may be clearly correlated with mental content as modern neuroscience has shown, but they *are* not these

¹⁴This discussion was started by Nagel (1974) in his article *What is it like to be a bat?* and has not yet been resolved. For a brilliant account of how the qualia-argument jeopardizes a materialist account of consciousness see Chalmers (1996). *The Conscious Mind. In Search of a Fundamental Theory* and more recently Chalmers (2010) *The Character of Consciousness*.

mental contents. To identify these material processes with mental content is committing a category mistake.¹⁵

Another unsolved problem seems to be the supposition that is rarely questioned, namely that we can draw a conclusion about causality from a very strong correlation between material brain processes and mental processes. Certainly, if you shoot someone in the head he will die because the brain centers that are necessary for keeping the vital processes going are destroyed. If you miss your target slightly it may be that the person survives with only some deficits, depending on where in the brain the destruction is located. Neuropsychology has produced a large number of such correlations between destruction in the brain and psychological deficits (Sacks 2010; Damasio 2000). Neuroimaging has also produced a wealth of correlations between brain activity and psychological or mental activity. In this sense, correlations between brain processes and mental processes are very well documented, very convincing, and highly suggestive. However, we should not forget that they are just that: correlations. Normally, correlations are transformed into causes either through knowledge of the mediating processes or through a plausible theory. Hume and Ockham before him have pointed out that causality is a property of our ideas and not of nature.¹⁶ At present we don't have the slightest idea, let alone a good theory, exactly how material processes in the brain give rise to psychological processes in our experience. More importantly, causal theories normally point out transitions between correlations on the same categorical plane. For instance, correlations between lightning and fire are transformed into a causal theory by our theory of electricity, and we are justified in saying lightning was the cause of the fire. By that we mean: We know that in lightning strong ion currents are discharged along a trajectory of minor resistance towards the earth and set a lot of energy free. If inflammable material is in the vicinity of this current it will be incinerated. Please note, all elements of this causal chain – current potential, ions currents, lightning, fire – are

¹⁵“Categories” are types of speech and notions, as Aristotle has already seen. A category mistake happens if I apply a notion from one category to another, for instance if I say “My food tastes 30 feet”. This is the type of language that can either be found in speakers who are not competent in a language, in mentally disordered people whose bizarre language is due to a lot of such mistakes, or, deliberately, in poetry, for instance if a poet were to say “The heaven was heavy with the pain of the slain below on the ground...”. Here the mixing of categories produces imagery that can convey meaning that is otherwise difficult to convey. In science category mistakes are problematic as they normally lead to incorrect conclusions. Mental and material notions simply belong to different categories, and emergence does not help either because emerging concepts normally belong to the same category. “Liquidity”, although emergent, is also a material concept. Recently Hoche (2008) pointed out again that an identity theory commits such a category mistake that would lead to meaningless sentences of the type of “Caesar is a prime number”. This is a sentence that is neither true nor false, but simply without meaning, because one category has been placed in relation to another category with which it is not compatible. For this simple formal reason, a purely materialist identity theory is not tenable.

¹⁶The classical analysis of causality according to Hume, who followed Ockham, is that causes precede their effects (temporal precedence), effects are normally contiguous to their causes (spatial contiguity), and produce those effects regularly (regularity, lawfulness). However, both are quick to point out that causality is an abstraction of our mind, not a thing found in nature.

localized on the same categorical plane. They all belong to the realm of material processes. The same cannot be said of the alleged causality of brain processes for psychological processes: Here causality is stated from one categorical plane into another. Not only this, there is also a proposition, without any theory whatsoever, that would transform the observed correlations into causality. As a rule, the modern and more serious materialist concepts take refuge in the terminology of complexity theory as stated above, and then state that mental processes are a new emergent property of a complex system. Although this sounds plausible, it does not solve the problem, in my view, that the new emergent property, psychological experience, is a categorically completely different property to that of the basic neuronal material processes. The examples that are normally used to illustrate and explain this – such as the one used above that water has the emergent property of being a liquid – describe emergent properties that are on the very same categorical plane. To my knowledge there is no example of a known emergence that has been sufficiently analyzed scientifically that describes an emergent transcendence into a different categorical plane.

Arguments have not been the strongest instrument of scientific critique in the history of philosophy and science. More potent, normally, are empirical grounds. An important and hitherto ignored empirical argument is the observation that apparently there can be conscious experience under certain circumstances without concurrent brain activity. Apart from a couple of spectacular individual cases, there is also some evidence from prospective studies. Probably the most spectacular individual case is that of Pam Reynolds, and more recently of Eben Alexander. Pam Reynolds had complex neurosurgery to treat an aneurysm of the basal artery in the brain. During this surgery the brain is systematically and slowly cooled down to 15 °C, and the blood supply is interrupted so that all metabolism is minimized and brain activity is stopped for the duration of the surgery. The brain was kept in a state of potential viability, similar to an organ that is taken for transplantation, without, however, its full activity being sustained. After her operation Pam Reynolds was able to report in great detail on events and activities *during* the operation that she apparently could not have previously known, in such a way that kryptomnesia, i.e., memory of something that has been experienced but forgotten, cannot be used as an explanation. It looks as if this lady had some consciousness *during* her operation although her brain was not functional.¹⁷

¹⁷This case is reported on a number of websites, but in most detail by Sabom (1998), who was the neurosurgeon active in the operation. For a critical reader, this book is quite problematic because of the openly fundamentalist religious attitude of the author, who quickly jumps from a single case to all sorts of proof of God and immortality. If one is able to detach from these ideological problems of the text and just look at the case as an empirical piece of data, then this case has quite some epistemological value. Critics normally mention that the descriptions weren't very precise and are rather from the final phase of the resuscitation process; therefore they might have been the experiences of a brain that is kicking back into action. If that is the case, they may not have been near death experiences or consciousness experiences during surgery, but resuscitation experiences. This critique doesn't hold in my view in this case, because the experiences described are from the middle of the surgical process.

More recently a neurosurgeon, Eben Alexander, reported on his own case in which he suffered from a meningitis-induced coma that rendered his brain inoperative for about a week. This was well documented by the apparatuses in the intensive care unit. He reported quite elaborate conscious experiences, very similar to near-death experiences that have been frequently documented, during that time. What is interesting in this case is the fact that he also reports phenomenologically quite different, disjointed and psychotic experiences during the wake-up phase from the coma similar to those well known in the literature of the subject. This seems to distinguish the conscious experiences, which were clear, visually beautiful, remembered in detail, contained auditory and visual elements and were noetic in the sense that the recipient received clear messages and knowledge, from the disjointed hallucinations of the waking up period. By the very same token they seem to refute the argument that such experiences are the reflections of a brain kicking back to action.¹⁸

Single cases such as this can never prove anything. However, they can be a proof against a generalized theory, in this case against the materialist thesis, that consciousness is reducible to brain activity. It is rather unlikely that such a single case will be accepted as proof by the scientific community. However, there is some interesting data from prospective studies that show that clear consciousness in patients after cardiac arrest can be seen even 30 min after the heart has stopped beating. We know from other research that 30 s after the heart stops beating the blood flow to the brain stops, and after five more minutes brain activity also stops. Although such near-death experiences are not the rule after cardiac arrest and other life-threatening accidents, they are reported repeatedly and are well documented in the scientific literature.¹⁹ The data are sufficient, in my view, to contradict the statement that we have solved the problem of consciousness and that subtle materialist theories are a sufficient solution.

¹⁸This standard interpretation of near-death experiences is presented by Marsh (2010) in *Out-of-Body and Near-Death Experiences: Brain-State Phenomena or Glimpses of Immortality?* See also Alexander (2012) *Proof of Heaven: A Neurosurgeon's Journey into the Afterlife*.

¹⁹The information about the impossibility of brain activity in one of his well documented cases are reported by Pim Van Lommel in his 2011 article *Endless consciousness: A concept based on scientific studies of near-death-experiences*. This long duration of cessation of brain activity in some patients with cardiac arrest and the fact that this experience is not universal in all patients, seems to make other attempts at explanation improbable. The important argument here is that there seem to be some experiences that occurred during a time when the brain is not active, and precisely *not* during awakening, and during which the EEG was likely to be flat. However, there are of course no studies where EEG has been taken. Apart from that, according to Van Lommel, one would have to expect that more people than the 13 % of cases he had documented would have near-death experiences if this experience were indeed the self-support mechanism of a dying system. (See van Lommel 2001, 2004; Marsh 2010).

4.1.3 Dualism

It is these and a couple of other difficulties with materialist models that give rise to dualist viewpoints. Dualism starts from the assumption that consciousness has its own substance and the brain, or matter, another one. The prime example for such a position is that of Descartes, who also laid its terminological foundations. Dualist models are intuitive because they support our everyday experience. *I*, as a thinking, experiencing, sensing, and wishing something, am, of course, different from a table, sausage or trees. There is quite a lot of abstraction involved in reducing our everyday experiences to accepting the scientific materialistic notion of consciousness as an emergent property arising from a neuronal network of our brain.

However, all dualist models, at least if they are to be taken as substance dualism models that assume two different substantial modes of being, have notional problems. They have to make plausible how one categorically completely different substance, such as the mind or consciousness, can act upon a completely different substance of another category, such as matter. In its own way, dualism has the same problems as idealism and materialism. While idealism was unable to produce a convincing notion of matter from mind, materialism has the reverse problem, and dualism cannot really make clear how different entities could interact in a rational and sufficiently intimate way. Descartes noted this problem previously, and hypothesized that the pineal gland could be such an organ of interaction, a kind of mixing module. Modern dualism, such as that of Eccles and Popper as described by Beck and Eccles (1992), tries to use quantum fluctuations in the vesicles which contain transmitter substances in the neurons as a place where interaction between mind and matter could happen.

Both science and spiritual traditions have, as a rule, attempted a monist interpretation of reality. It is for this reason that dualist approaches are not favored by either camp.²⁰ Science has always looked for simple vantage points for explanations in order to explain phenomena, and such a simple explanation was found in the modern notion of matter. Spiritual traditions have also always handed down the big intuition of the unity of Being. Sometimes this has been married with idealist philosophical world-views because they seem to be closer to spiritual experiences than materialist ones. Is this so by necessity? Does a spiritually oriented tradition of experience naturally lead to an idealist world-view that gives primacy to mind over matter, or does it have to lead to a dualist world-view that would again quarrel with the materialist concept that is at the base of modern natural science? Might there be

²⁰The fact that the Christian tradition has frequently and wrongly been connected with such dualist positions has its reason in the fact that it has only been partially integrated, and that more subtle distinctions have been blurred. Apart from that, Christianity has always, despite all attempts to the contrary, involved a Manichean stance. The scholastic Aristotelian formula of the soul as a form of the body (*anima forma corporis*) assumes that soul and body *together* are foundational for the living organism, and therefore belong together. The Aristotelian active intellect was, in the teaching of Thomas Aquinas and others, interpreted as a Divine element in man, the trace of the Divine in the soul or the similarity with God in the soul. It is this that reverts into the realm of the Divine. However, it would not be correct to interpret this as a dualist teaching of mind and body. See Fischer 2003; Schneider 1973.

a mediating position that could unite both? I think that there is such a mediating position and that the key for it is both a careful scrutiny of what the modern notion of matter implies as well as what the monism of spiritual traditions actually means. I will not go into the process, but convey my result. The key to understanding this is the notion of complementarity, and it might offer a fourth approach that avoids the impasse of the other three.²¹

4.1.4 Complementarity

The notion of complementarity lies at the foundation of the modern concept of quantum mechanics, as is well known. Nils Bohr borrowed the notion from the psychology of his day—without, however, naming his sources, probably because he was afraid that others wouldn't take him seriously—and introduced complementarity into physics.²² With the notion of complementarity he wanted to characterize a strange situation that was unavoidable in his quantum physical description of reality. In order to describe reality, one had to use two mutually exclusive, *maximally incompatible* descriptions for *one and the same thing*.²³ One might decide experimentally to measure the position of a particle, in which case momentum would be unclear, or one could measure momentum in which case exact knowledge of the location of the particle is lost. *Both* momentum and location are part of the descriptions of *one* particle. Whereas in Newton's mechanics it was possible to measure both without one influencing the other, exactly this is impossible in quantum mechanics. Complementarity therefore, at least regarding the material description of the world, is *a basic necessity for modern natural science*.²⁴ The notion of

²¹ For those readers interested in the details: We have developed the arguments in more detail and technical precision in Römer and Walach (2011) *Complementarity of phenomenal and physiological observables: A primer on generalised quantum theory and its scope for neuroscience and consciousness studie*, and Walach and Römer (2011). *Generalized entanglement – A nonreductive option for a phenomenologically dualist and ontologically monist view of consciousness*.

²² Plaum (1992) shows how psychology was the source of Bohr's concept of complementarity. Most important for this were Bohr's contacts with Harald Høffding, a philosopher, and with Edgar Rubin, a psychologist of perception who was one of the first people to introduce bistable images, images that can be seen in two ways. Additionally, Bohr was very likely familiar with William James, who had used complementarity as a notion in his book on psychology and applied it to two aspects of different personalities being present at the same time in some clinical problem. (See Plaum 1992; James 1981, p. 204). *Niels Bohr's contribution to epistemology* (Rosenfeld 1963) has drawn the attention of the public to Bohr's sources for his notion of complementarity. See also Rosenfeld (1961) for a fuller description.

²³ Bohr never gave a clear definition. (See Bohr 1966, 1997). The best philosophical analysis in my view still is Meyer-Abich's *Korrespondenz, Individualität Und Komplementarität* (1965).

²⁴ As I have pointed out earlier, modern day quantum mechanics does not need the notion, but is still using the same concept, however formalized as the treatment of incompatible observables, using a C*-algebra that can actually do this. We have shown in our concept of a generalization of quantum theory that exactly this is the core of the theory that cannot be given up (Atmanspacher

complementarity does not refer to contradictory statements such as are typical for dualities, for instance, light-dark, dry-wet, hot-cold, loud-quiet, just-unjust. Complementarity means maximally *incompatible descriptions* that are essential for describing one and the same thing.²⁵ It is very important to understand that this notion is not just a new definition of something we know already, but is indeed a new discovery of natural science. It denotes a qualitatively completely new way of thinking and describing that has not reached large parts of other scientific disciplines as of yet.²⁶

My proposition now is to use this notion for the description of material and mental processes.²⁷ This complementarity is useful to promote an ontological monism that simultaneously allows for phenomenological dualism regarding the experiences in our phenomenal world.²⁸ Following this, mind and matter, or their respective phenomenological expressions brain and consciousness, would be complementary aspects of one underlying reality. This reality would have to be conceptualized in a more fundamental way than in our modern concept of matter. Formally, such a notion can be derived from quantum mechanical formalisms (Atmanspacher 2003).²⁹ Such a position would have a couple of benefits over and above traditional subtle-materialist positions: Mind or consciousness would not have to somehow arise but it would be an original complementary aspect to matter. That would also help in understanding the problem of qualia and the subjective phenomenology of our consciousness better. There would not be anything that would have to arise and nothing to explain, as the *inside* of experience would always be a complementary part of material complexity. Nevertheless, this phenomenological

et al. 2002; Filk, and Römer 2011). Kim and Mahler (2000) prove that complementarity cannot be reduced to another notion, and hence is indeed fundamental for our understanding of nature.

²⁵Formally this is visible in what is called non-commuting operations that are written in mathematical language of the C*-algebra as, for instance $p^*q - p^*p < 0$. This is the most general version of what is expressed in the Heisenberg uncertainty relationship that is key. You understand immediately, how strange this is, if you put the figures “2” and “3” in place of “p” and “q”. For in our, normal, Abelian, algebra the result would be clearly “0”. But in the formal structure of the C*-algebra this is not the case. This is the formal-mathematical expression of complementarity.

²⁶K.H. Reich (2003), a former physicist-engineer (who built the very first hadron collider at the CERN) and psychologist of religious development has called such a new way of thinking *relational contextual reasoning* and has derived it directly from complementarity as known in quantum mechanics.

²⁷This proposition follows Fahrenberg (1979). His attempts were taken up by Reich (ibid) in the process of developing his complementarist way of thinking and then followed by a more explicit exposition in Walach and Römer (2000). The concept is not new and had previously been proposed by Spinoza and others such as Feigl (1973). See also note 29 for more technical accounts.

²⁸There are also other ways of moving ahead if we want to salvage the implicit unity with phenomenological multiplicity. Whitehead, for instance, and, later, process philosophy, support seeing the ultimate constituents of being as very basic mind-matter units which have both a physical and a mental pole. However this concept has other difficulties, such as how to derive a unity of experience from such a viewpoint. Whitehead has only insufficiently solved the problem and I have not seen any solution so far. See Whitehead (1978) and, for instance, Griffin (1988).

²⁹This proposal would involve conceptualizing mental and physical systems as inequivalent representations of one underlying system arising out of a symmetry breaking process.

dualism is not an ontological one; the unity of the world and of the basic phenomena in the world would not be called into question at any point.

Such a position makes it possible to allow for inner experience and spiritual experiences as one way to access reality experientially, without, however, denying the role of our sense organs for outer experience, but as a special mode of seeing from within. Such a notion of consciousness, which is non-reductive and yet monistic, which allows for a phenomenological access to reality in our consciousness, enables us to provide a specific epistemological place to inner experience without assuming experiences of our consciousness are just idle activities of a neuronal system in default mode. On the contrary, if such a complementarist stance is taken seriously, then we have to expect that inner experiences are complementary representations of the same reality that presents in normal sense experiences, as they are the basis for natural sciences (Walach 2007).

Now we have reached the systematic place which was the starting point, historically speaking, for this discussion. This place is the banning of inner experiences from the canon of methods of science. Today we have reached the time and place where this mode of experience has to become a topic for scientific discourse anew. If we are ready to accept the complementarist solution of the problem of consciousness, then it is a natural consequence that our consciousness must have its own access to reality similar to our senses. Precisely this is the mode of spiritual experience. It is part and parcel of complementarity that it is not just a doubling or mirror relationship of two parts, for if it were so we could just do away with one mode and rely on the other one: for instance, on the access to the world through our senses and through natural science. However, it is the nature of complementarity that each of the two methods of access is necessary to have a full description of reality, precisely *because* this perspective is not possible through the other route of access. This means that inner experience as an access to reality will give us new elements of knowledge and experience of reality which we will not be able to glean via outer experience or sense experience of nature, i.e. via the mode of natural sciences. This new access will give us exactly those elements that are missing in our current understanding and which we are in urgent need of in order to promote the program of enlightenment. And it will yield what this whole book is about: a secular type of spirituality. Out of it arises the knowledge of values and meaning, knowledge not only of the material relationships in the world, as provided by science, but of the nature of reality as such, insight not only into the world's past, but perhaps also into its possible future and how to create it.³⁰

³⁰Bohr (1966) has already pointed out that the concept of complementarity can not only be seen in a narrow sense and applied to physical entities, but that it is also a more general structure of epistemology which would also be applicable to the different perspectives of natural sciences and religion.

4.2 The Question of Epistemology: Inner Experience as an Access Route to Reality

If we are ready to accept that consciousness is not just the result of material systems, i.e. a by-product of neuronal activity, but a complementary aspect of reality equally important as matter, then we can also have an understanding of the epistemology of inner experiences, at least in theory. We can train our outer senses and make them more acute, using scientific apparatus and supporting them with technical gadgets in order to understand outer material reality. Similarly we can train our consciousness in order to have access to the deeper dimensions of reality from the inside. In this one point Ken Wilber is right, I think, when he says that inner experience has the same structure as experience itself and allows access to reality (Wilber 1998). It is unclear, however, what exactly the epistemological status of such an experience is, and it is still less clear which criteria of truth, validity or trustworthiness we should apply to such experiences. It is utterly naive to think that the same criteria that are useful in testing outer experiences and have been included in the canon of methods of modern science can be also applied to inner experiences, such as replicability, clarity of communication, falsifiability, and so forth.³¹ We will have to face the scientific problem of establishing a novel type of science with novel criteria of validity, reliability and veridicality. Perhaps it will become a psychology of consciousness or a science of inner experience, with its own criteria. Because this whole area of introspective science, inner experience, or spiritual experience has been barred from the development of science, at least in the West, there has been no possibility whatsoever so far to develop such a novel type of inner science. Perhaps accessing the rich introspective traditions of the East might be a starting point (MacPhail 2013).

³¹ Jorge Ferrer (2002) criticizes the epistemological prejudice of systematic authors within transpersonal psychology, especially Ken Wilber. In his view, stating that transpersonal psychology allows access to reality in the same sense and in a similar way of experiencing as normal science, and is therefore scientific, is making a category mistake. I think Ferrer is right on this point. However, by using complementarity to make the relationship between inner and outer experience systematic, and by providing a systematic place for consciousness to access reality by inner experience, I think we have at least a partial solution to the problem. I think Ferrer is also right in critiquing Wilber for using traditional criteria of scientific demarcation, which is basically buying into a critical rationalist understanding of science in the sense of Popper and Lakatos. This has been shown, within the theory of science itself, to be highly implausible, let alone sufficient for a positive grounding of epistemology of inner experience itself. This is because inner experience is, by definition, subjective, and therefore not inter-individually accessible. Spiritual traditions know pragmatic criteria of usefulness in life, and thus externally testable pragmatic criteria, which, however, can only be tested indirectly. This issue is also tackled in the next chapter. (See also Walach and Runehov 2010; Wilber 1998).

4.2.1 *Again: Franz Brentano*

At the very beginning of scientific psychology there was already a track laid in this direction by one of the founding fathers of modern psychology, Franz Brentano (1838–1917). I pointed this out in the previous chapter and am taking this thread up here again. Brentano, who was a nephew of the romantic novelist Clemens Brentano, was one of the most influential, albeit least known, of the founding fathers of modern psychology. He had given up his career as a Roman Catholic priest when he ran into problems with the pronouncement of the dogma of infallibility of the Pope. He drew up the document for the German Catholic bishops advising the Pope against such a step, and could not abide with his priesthood after the Pope had decided in its favor. Prior to this, in his philosophical habilitation in Würzburg in 1866, he had uttered the provocative thesis: The method of philosophy can only be the method of natural science. By that he meant that philosophy would have to be a science of experience as well if it was to make advances, and that sterile speculation is useless. Later, when he took on the Chair of Philosophy and Metaphysics (taken over by Mach after him and, later, developed into the Viennese Chair for Psychology), he showed what he meant by that: empirical psychology as introspection. He differentiated what he called “genetic” (biological in modern phraseology) psychology that clarifies biological presuppositions of experience, from descriptive psychology or psychognosis, which would help to clarify the laws introspectively.³² While he thought that biological psychology is less definite by definition, descriptive psychology would produce clear scientifically founded insights. Brentano’s intention was to found a science of introspection or of inner experience. Psychology, however, chose different paths, and very soon introspection was given up as unfruitful, until it moved back very stealthily into different places in science in recent times.

For instance, one systematic place for such methods are qualitative narrative methods of research within the social sciences, which try to gain access exclusively to the experience of a participant and thus to only introspectively available views of reality, or, in other words, the inner experience of the research partners – researcher and research subject alike. It is interesting to note that they are founded on modern, or rather postmodern, phenomenological theories which again draw on Edmund Husserl who founded a phenomenological science which he believed provided direct experiential access to reality. Husserl wanted to prevent the completely objectifying access to reality, which was typical for scientist positivist science, becoming the only acceptable one, and, also, to break through the indirect mediation of reality which was the consequence of post-Kantian philosophy. Instead, Husserl wanted to reopen direct access to the world of experience. Husserl was a student of Brentano, had heard his lectures in Vienna, and therefore was directly influenced by his ideas of inner experience as an access to reality (Husserl 1919; Münch 2002).

³²The first ideas he produced in his time in Würzburg, were then developed in his lectures in 1890/1891 in Vienna. (Brentano 1995a, b).

I pointed out above that there was still another line of development within psychology that had taken up Brentano's idea: Sigmund Freud's psychoanalysis. Freud also had heard Brentano's lectures in Vienna and, among others, taken his inspiration from him. He was particularly inspired by the idea that a new method of psychological research was needed, that the method of inner experience had to become the centerpiece of psychological research (Merlan 1945, 1949). He found this method in his analysis of dreams and free association and in his very special way of hermeneutical understanding of the analytic situation of two persons constructing a common reality.

We see that right from the beginning of empirical academic psychology there was a strong impulse, which I want to take up, to found an epistemology of inner experience. While Brentano and his successors were interested in the normal state of consciousness, the proposed science of spiritual experiences which I have in mind as a complement to natural science would target a special concentrated or collected state of consciousness. It is my contention that in such a state consciousness has its own epistemological access to the whole of reality. If that were to become an accepted method, then the beginning of scientific psychology could receive a new and even deeper resonance.

It is interesting to note that in his private communications with Carl Stumpf Franz Brentano mentioned that contemplation, which he had probably learned as part of his theological training as a priest, remained a centerpiece of his personal life. He said in a letter to Stumpf, quoted by him in his biographical sketch, that he would rather give up every reading and every worldly honor and position than refrain from his daily practice of contemplation, and he advised his pupils to do the same.³³ Thus, Brentano was well aware of this intuitive and experiential background

³³ See *Erinnerungen an Franz Brentano* (Stumpf 1919). On p. 93f. Stumpf says (translation mine): "Gleichzeitig mit der philosophischen Ausbildung lag Brentano die religiöse Vertiefung seines Schülers am Herzen. Er legte außerordentliches Gewicht auf die Meditation, d.h. die ruhige nachdenkliche Vertiefung in die Geheimnisse und überlieferten Begebenheiten der Religion, wie sie von der mittelalterlichen Asketik und Mystik gepflegt wurde. ... 'Wer nicht betrachtet,' schrieb mir Brentano nach Göttingen Silvester 67, 'scheint mir kaum zu leben, und ein Philosoph, der die Betrachtung nicht pflegt und übt, verdient den Namen nicht, er ist kein Philosoph, sondern ein wissenschaftlicher Handwerker und unter den Philistern der philiströseste. Lassen Sie sich um Gottes willen durch nichts in Ihrem Entschlusse wankend machen, tägliche eine kleine Zeit der Betrachtung zu weihen. Die Untreue gegen die Vorsätze, die Ihnen Gott einflößt, würde sich bitter rächen. Für immer würde Ihnen vielleicht die schönste Blüte des Lebens, erst halb erschlossen, verwelken. Könnte ich Ihnen nur aussprechen, wie unermesslich dieser Verlust sein würde! Ich kann es nicht, aber das eine sage ich mit Wahrheit, dass ich lieber allen meinen gelehrten Kram in den Wind streuen, ja dass ich lieber sterben würde, als dass ich auf die Betrachtung verzichtete.' ... Bei der Abreise nach Göttingen schenkte er mir ein kleines griechisches Neues Testament... Das Aussehen des Büchleins bezeugt, wie der Dürstende, dem er's schenkte, getrunken. – Together with philosophical training Brentano had the religious deepening of his student close at heart. He put extraordinary emphasis on meditation, i.e. the quiet, contemplative deepening of the secrets of religion that had been handed down and exercised by medieval ascetism and mysticism... "Whoever does not devote time to contemplation" he wrote to me in Göttingen at New Year's eve 1867, "does not seem to be really alive, and a philosopher who does not practice contemplation does not deserve to be called one, but a scholarly craftsman at the most, and among hypocrites the

to his own descriptive psychology. It would also mean that the state of mind Brentano envisaged when he talked about inner experiences or introspection was quite different from our everyday type of dispersed and fragmented state of consciousness. My contention thus is that such a sophisticated state of consciousness as a precondition to a methodologically aware introspective methodology was already part and parcel of the founding ideas of psychology and hence has to be taken up here. Also my claim does not seem to be so outlandish as it is very similar to Brentano's original impulse. The only real difference which is the consequence of the century that has passed since Brentano's first ideas and our times is that we have become more weary of truth claims of philosophical systems and the shakiness of diverse methods of accessing reality, and the broken notion of "reality" as such. The difference is also that only highly trained and exemplary states of concentration and immersion will be fruitful in this enterprise.

This also highlights why such an access is not an everyday one. Apparently we need special exemplary states of concentration or collection of consciousness to allow such inner experiences, which we have called spiritual experiences of unity, mystical experiences of union with God or, perhaps a little more down to earth, inner experiences of Reality. Such states of consciousness don't seem to be the rule, they don't seem to happen automatically and they probably don't pop up in large numbers and repeatedly. Otherwise we would not be having discussions such as the one I am trying to open up here, as what I am saying would be general knowledge. This is also likely the reason why such inner experiences, with their own epistemology, are difficult to integrate into science. However, such experiences seem to be frequent enough and powerful enough to be documented over and over again, and they have led to ever-new impulses and shown themselves as a potential access to reality, leading to this continuous knocking on the door of science. Following the general insight of philosophical hermeneutics, one could say: Everything that has some content of truth to it will continue to pop up anew until it is understood and taken in.

We can summarize the discussion up to now: If one is willing to accept the complementarist solution of the mind-body, or consciousness-brain, problem, which is transcendental monist in ontology but complementary in phenomenology, then both modes of access to reality are legitimate and possible. In such a view, brain and consciousness are two complementary sides of reality in the same way as we have two complementary ways of experience; one in which outer experiences through our senses lead to understanding of the material world, and an inner experience of consciousness that allows us to have a holistic intuitive insight into the

most hypocritical. I beg you in the name of God let nothing change your decision to dedicate a short time each day to contemplation. The infidelity against those propositions that God has suggested to you would not go without bad consequences. Perhaps the most beautiful flower of life, only half opened, would wither forever. If I could only tell you how immeasurable the loss would be! I cannot, but this one I say in truth, that I had rather strewn all my scholarly trash into the wind, nay that I had rather die than let go of contemplation." When I left for Göttingen he gave me as a present a small Greek New Testament... How it looks now proves to what extent the thirsting one who he had given it to has drunk from it" 93f.

world in its depth. Both types of experiences are experiences of *reality*, in two different aspects. Outer experience of the senses is well known: It opens up access to the outer world of material things and objects, that is, in abstract language, the world of matter. However: What is the referent or object of inner experience? If in inner experience we also experience a type of reality, namely in its complementary form, what do we call it? What type of reality is it?

4.3 The Question of Ontology: Inner Experience of Reality

As we have seen, the complementarist approach leads us to seeing our consciousness and our physical world as two complementary aspects of one reality, namely of us as a person. In the same sense, mind and matter are, in abstract language, two complementary aspects of one and the same reality. Thus our outer sense experience and its collective manifestation, science, give us an experience of matter and an understanding of material reality. Then inner experience, the experience of consciousness, will also be an access route to reality in its totality and this inner mode of knowledge from inside. Inner experience, we could say pointedly, leads us into the inside of reality into the *Consciousness* of the *Whole* itself. The Christian mystical tradition called this experience the experience of unification with God.

But is it not the case that God is the totally other, transcendent, and not defined by single beings themselves? Is it not the case that in the Jewish tradition the name of God is inexplicable and cannot be mentioned? Is it not the case that other traditions prohibit talk of the final ground of everything or what is experienced in such an experiential knowledge and call it meaningless, even prohibited? Yes and no at the same time. *Esse est deus* is one of the principal sentences of the scholastic tradition, which Meister Eckhart has placed at the beginning of his unfinished theological sum (Weiss 1964, p. 38). By that he meant that only the totality of being – not single beings – may be called *God*. The Christian tradition talks about the immanence and transcendence of God at the same time. Cusanus used different images and metaphors of infinity. The Buddhist tradition speaks only in paradoxes about what it calls dharma. All this shows that there is not one single clearly denoted referent of this *inner spiritual experience of everything*.

Perhaps it is also the case that this experience is manifold, different, even contradictory, as is the outer experience of reality which we can access through our senses. Even here it is difficult for two people who perceive one and the same reality to agree on what they see or what they have seen means, let alone how to react to it. Why should it be different in the realm of inner experience? Therefore the attempt of the apophatic form of theology can be well understood: We can only talk about this reality by saying what it is not, i.e. discussing negatively but not positively which attributes and contents we should ascribe to it. In the simplest, and perhaps also the emptiest way of speaking, we might be able to say: If we are willing to accept the presuppositions and theoretical statements made here, then we can at least be sure that in inner experience we have some internal aspect of *reality* before

us. Whether and to what extent it is the *whole* reality – and this would be, in Eckhart’s way of speaking, God himself – is another matter. Nevertheless I would contend that this inner experience allows access to an inner aspect of the world, to its inner structure, and potentially, to its total consciousness. In other words, at this point the clear separation between inner and outer reality is blurred, we become aware of the fact that this separation is quite artificial, and we know that this separation follows a certain type of conventionality of our normal mental state.³⁴ We also become conscious of the fact that reality as we normally perceive it, namely only from the outside and in its material aspect, is only half the world, much like the moon which we can see only exhibits its near side. However, unlike the moon whose far side we can never see, inner or spiritual experience can also reveal the other side of the world, its inner aspect, at least partially. It is exactly for this reason that it is possible and rational to take this aspect of reality into view within the remit of a still unborn science of inner experience or spiritual science, as a potential, novel aspect of science.³⁵ This would then be a spirituality of experience before or without doctrinal ties and interpretations, as far as possible: a secular, non-dogmatic spirituality.

This inner experience of reality from within can, of course, have as many shades, deep structures, and levels of comprehensiveness as our outer experience through the senses. There we find cursory glimpses of some material reality, misperceptions, as well as the very deep insight of science. It likely is similar with spiritual experience. The full-blown spiritual experience of enlightenment might indeed be an experiential contact from within with being itself, and as such very rare. But in between there might be many steps and shades. I am not concerned with the full landscape of what might be possible here. Later on I will go into more depth and give a few examples. Suffice it here to say: The referent of inner, spiritual experience is the structure of the world from within. It might be the theoretical structure, as glimpsed by great minds in their scientific theories of great beauty and power. It might be a reflection of this structure in works of art or music. It might be some insight into the value system that knits our social lives together. Or it might be an individual insight and experience of personal meaning and purpose that is intimately entwined with the unfolding of an individual life in a particular place in culture and history. The common denominator of all this is condensed in the notion that inner, spiritual experience touches on the inner structure of reality. This is also why it is a

³⁴Carl Gustav Jung pointed out that there are specific moments in which this separation between inner and outer reality, sometimes called the Cartesian cut, can be suspended. In such moments outer reality seems to behave in a way as if it were answering or conforming to an inner sense or reality, and vice versa. Jung called this experience “*synchronicity*”. This is a notion which he had worked out in his dialogues with Wolfgang Pauli. It presupposes some relationship between inward and outward reality through meaning. (Jung 1952; Meier 2001).

³⁵I repeat: This is only true for the West. There is a sophisticated science of inner experience in the East, in Vedanta and Yoga, and in the Buddhist tradition. The fact that the anatta teaching of Buddhism is to some extent contrary to Vedanta and a reaction towards it, both gleaned with the same methodology of meditation, tells us, however that it is not quite simple and straightforward. In that sense we are still at the beginning, whether in the East or in the West.

necessary epistemological complement to sense experience, and why it should come under the remit of science and public scientific discourse. That this will change how we see science and conceptualize it should be obvious. A spiritually informed science will be a more complete, and hopefully also a more humane science.

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Chapter 5

Secular, Non-dogmatic Spirituality

Now we have reached the place, systematically speaking, where we can see spirituality not only as occupational therapy for existentially bored and aging people, but as a program for knowledge. Such a program should complement the program of science in the very sense of the Enlightenment movement and should extend its remit. We have seen that spiritual experience is a result of a consequent move of consciousness towards its own interior, i.e. a modality of knowledge that is mediated by the inner sense – the *sensus interior* – in the terminology of medieval mysticism.¹ Consciousness that is seen as a complementary aspect of reality and therefore an expression of this reality can, by reverting into itself, likely reach states that are quite different from the everyday state of fragmentation that we call our normal state of consciousness, states that are different from normal consciousness in the same way that a plasma state of matter is different from crystal lattices. In order to be able to describe this more precisely and clearly we would need a science of consciousness, which we do not have at this point.

Such a science of consciousness would probably describe exactly how such a change of consciousness might be brought about, what consequences might be derived from it, what different types of access exist and so forth. I can only give a very rough outline here.

¹ The *sensus interior* can be found practically everywhere in the psychology of the Middle Ages. It is especially prominent and influential in the *Liber De Spiritu et Anima*, the book on the Spirit and the Soul, which is a kind of medieval psychology textbook that had been ascribed to St. Augustine for a long time, but was probably authored by Alcher of Clairvaux who was a friend of Saint Bernard of Clairvaux (Norpoth 1971; Pseudo-Augustinus and von Clairvaux 1896). The notion of *sensus interior* can also be found in William of Saint-Thierry, who was venerated as a saintly writer and friend of Saint Bernard and therefore had huge influence (Saint-Thierry 1854, 2001). From there the notion was taken up widely. In my systematic piece on Hugh of Balma (Walach 2010) I have tried to clarify this history of reception and its consequences. St. Bonaventure also uses this notion in his very important piece *De Reductione Artium Ad Theologiam*, the reduction of philosophy to theology (Bonaventura 1961).

In addition, and perhaps very practically, spirituality could play an important role in a kind of collective psycho-hygienic preventative mode that could correct elements of our culture which are hostile to life and could preventively help adapt behavior to social and ecological necessities. Because spirituality, through modulation of consciousness, can have a direct influence on important neurobiological systems, it is very easy to imagine that spiritual practice will also have different social and health consequences. By regulating neurobiological systems we can start processes, directly or indirectly, which have reverberations in our affect, in our cognitions, and in our social competencies. This might be a decisive element individually and collectively to help us cope with the ever more complex challenges of our world and with the ever more important decisions we have to take. In this chapter we will do the following:

Initially we will demonstrate quite cursorily that our every day understanding of consciousness and its normal state is not necessarily the optimal state of consciousness for learning something useful about reality. Following that we will discuss, from quite an egotistical perspective, why it is desirable to actually take up the exercise of regular spiritual practice. This desirability can be understood in two ways: The discussion of both the neurobiological foundations of stress and the effects spiritual practice has on them will show that it is very healthy to start a spiritual practice. It can also be more desirable in the eyes of some people from a subjective perspective because of the immediate individual psychological consequences and less through what happens in the brain and endocrinological system. It will be necessary, therefore, to discuss how spiritual practice enables psychological changes and desirable effects. This will lead into a discussion of the benefits of spiritual practice collectively for the whole community. I would like to jot down some visionary glimpses of what could happen in a collective culture of spiritual practice. Finally, we will look back at the epistemological aspect and raise the question of how spiritual practice can be important scientifically and epistemologically, and what consequences this would have for a new and expanded notion of science of man and for our culture as a whole. We will also clarify the adjectives *secular* and *non-dogmatic*. This will also mean clarifying the boundaries and opening up a perspective into the realm of traditional religions and the discussion of the question of which role traditional religions might play in such an understanding. I will restrict my thoughts to the consequences for Christian theology, with whose basic features I am well enough acquainted. Readers with other backgrounds will be able to derive their own consequences and predictions.

5.1 The Importance of Consciousness and Different States of Consciousness

We normally accept that our everyday consciousness and its state is also the normal and probably optimal state of consciousness. Phenomenologically speaking, the state of consciousness in our everyday life is fragmented and dispersed into many

different aspects which are active at the same time. It is characterized by high automatization of routines that occur, often without our knowing. It is accompanied by a more or less consistent ego consciousness that is constructed by these processes and an effective state that is highly labile and dependent on circumstantial triggers and the inner milieu of the body (Damasio 2000). Our whole psychology, all our knowledge of learning, motivation, emotion, and control of action is based on this understanding of everyday consciousness and on experiments whose data stem from individuals who are in such a state. Our whole process of doing science is connected to this state of everyday consciousness and is derived from it, at least in the aspects of what Kuhn calls *normal science* (Kuhn 1955). Extraordinary scientific discoveries, however, have often been the result of deep or heightened, states of consciousness. The time of retreat and heightened awareness that was the precondition for Einstein's Theory of Relativity has been described, as was Heisenberg's retreat on the island of Sylt in which he invented his mechanics of matrices for quantum theory (Brian 1996; Heisenberg 1977). The very moment of the scientific process which is related to the creative finding of a theoretical structure and which has been characterized by the notion of abduction is, in essence, very similar to spiritual experience, or in a different context would be understood as such.² Thus there are points of contact between scientific method and spirituality. We will return to this later. The point which I would like to emphasize here is the following: *Normally* our society identifies with our everyday consciousness. At least, there is no place in the scientific process of teaching and researching that allows for a targeted cultivation of deeper or higher states of consciousness and their usage, let alone a culture of consciousness that would teach modulation of consciousness. Therefore we cannot even imagine what modality of knowledge, what room for action, what culture in general would be possible or thinkable if we would cultivate a theory and culture of consciousness, as we have done with the theory of matter (Nisbett et al. 2001).³ Figure 5.1 is a very rough sketch of how we could produce a map of states of consciousness. This does not mean that this is the only, or even the best map. It is just one example, but it is intended to illustrate that there is a wide variety of states of consciousness.

²The notion of "abduction" here means a scientific way of conclusion, not the more familiar term of being abducted by someone against one's will. It is very rarely discussed in the theory of science. I have discussed this more widely in my German language textbook on the theory of science (Walach 2013). To put it briefly, abduction is a mode of conclusion in which we use many disjunct and individual elements to find a theoretical structure that can combine them. It is what good detectives like Sherlock Holmes do. Abduction reflects the creative side of science that cannot be formalized. It leads to novelty. This is the point where scientific knowledge and spiritual experience touch. Perhaps they are simply two different ways of the same modality of insight.

³The term "culture of consciousness" is a direct rendering of the pali word *shamatta*, which is a translation of the sanskrit *samadhi*. *Sila*, the behavioural-ethical foundations of the 8 fold path to liberation, is complemented by *shamatta*, the culture of consciousness, which comprises right intention, right concentration and right mindfulness, and leads to *panna*, the fruits of insight and wisdom. *Culture of consciousness* is thus an ancient concept meaning that we have to take care of our mind, just as we have to take care of our body. It was used in that secular context, as far as I can see, for the first time again by Metzinger (2006).

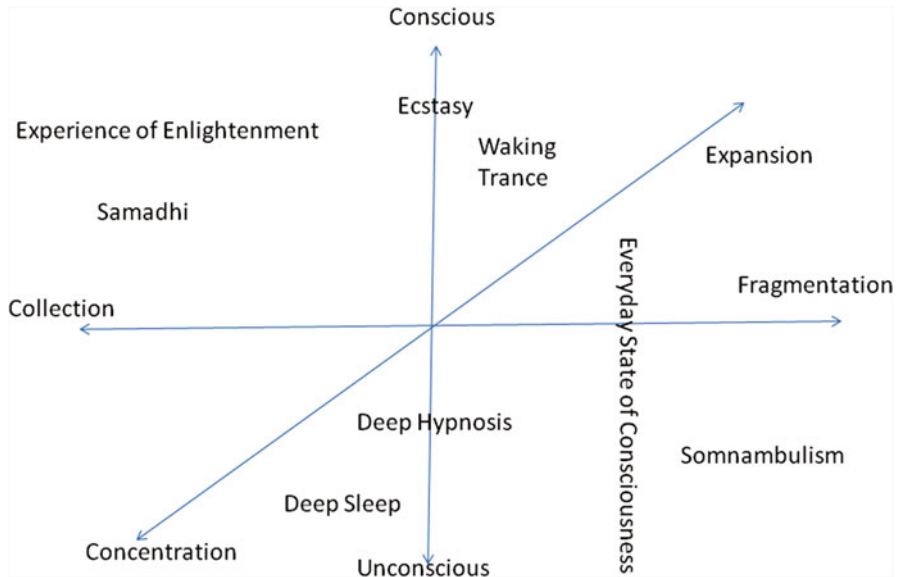


Fig. 5.1 Map of states of consciousness drawn along three dimensions and a bipolar coordinate system between the poles conscious/unconscious, collection/fragmentation, concentration/expansion

I distinguish three dimensions of consciousness which are ordered in the bipolar system: the axis between conscious and unconscious, the axis of collection and dispersion and the axis of concentration and expansion. These dimensions characterize the quality of consciousness. Normally one would also have to consider a fourth dimension which recognizes the fluidity and the time in which consciousness changes and also documents the development of consciousness over time. This would allow us to imagine this change as a series of images.

The axis between conscious and unconscious is intuitively easy to understand: Consider interpersonal conflicts as an example. We often find that other people tell us that we exhibit behaviors, say things, use gestures or have facial expressions of which we have never been conscious or would never have thought we had. We then think the others are lying, are being mean or are trying to gnaw at our reputation. In such situations it becomes painfully conscious how much of our communication and our perception inevitably remains in the darkness of our preconscious or unconscious processes. You don't have to be a follower of Freud or depth psychology in order to accept this. Modern cognitive psychology has proven this fact in many experiments and has coined notions such as implicit consciousness, implicit processing and so forth (Underwood 1996; Reder 1996). It has shown how, for instance, affects⁴ determine what we perceive or what we leave out of our perception when it

⁴I use "affect" in this context in the common sense as emotional tones of sense impressions, recollections, memories and experiences. This is quite different from the technical usage in the mystical psychology of the middle ages which I have discussed earlier.

does not fit our overall framework, although the reality might be quite obvious to others (Bolte et al. 2003). Social studies of perception and the respective theories have clarified how group pressure or even social consensus determine the horizon of what we can actually perceive. In the same vein, it is also quite conceivable that our consciousness of what we perceive, or for how long we can actually focus our perception or our consciousness on a certain point, can change. Studies, ethnographic documents, and reports on meditative practices show that it is in fact possible to change the time one can focus on one single process or element, and that states of higher or even heightened consciousness are possible in which we can perceive more precisely things that would otherwise be lost in the background noise of our cognitive activity.⁵

It is a little bit more difficult to understand the axis of *collection* and it is probably also not as independent from the axis of consciousness as the image suggests. Everybody knows states of mental distraction, called dissociation in technical lingo: anyone who has had the experience of being drunk knows that in such a state we can experience things that we do not remember afterwards. If others then tell us what we did or said at the time we are puzzled and doubt them. Most people can remember times when they travelled in a car and arrived at their goal without remembering how they got there. Survivors of trauma sometimes have clear memories of some elements of their traumatic experience. Others may completely forget certain elements, for instance, affects that are associated with the experience. In states of altered consciousness, for instance in deep hypnosis, events can be remembered that are otherwise not amenable to consciousness.⁶ In our everyday mode of consciousness we very often do various things in parallel. We talk on the phone while we are also thinking of meeting someone, trying to remember what jobs we have to do, perhaps even simultaneously doodling. Very often such cognitive activities vacillate very quickly and sometimes even run in parallel. We think of ourselves in analogy to modern computers, say that we can multitask or do various tasks at the same time, and consider this as a sign of cognitive capacity and flexibility. Someone experienced in meditation would have another view on this and would doubt that multitasking is a sign of cognitive capacity. A meditation teacher would perhaps see the capacity to do only one thing for a long time as a sign of cognitive capacity which,

⁵Here are three examples of many possible: practitioners of a mindfulness meditation retreat were capable of distinguishing visual cues that others saw as indistinguishable (Brown et al. 1984). Experienced mediators can stabilize bistable stimuli as in binocular rivalry where two images can be perceived and normally change automatically (Carter et al. 2005). We found that experienced meditators can stabilize a flipping image of a bistable Necker-cube when instructed for twice as long as untrained controls, thereby changing the perceived “nowness” of perception (Sauer et al. 2012).

⁶The discussion as to whether these experiences remembered in deep hypnosis are indeed memories of factual events or mental constructions is still not resolved. Followers of constructivist theories assume that these are all fabrications. However there is some good clinical material that would question such a radical constructivist thesis. Practically speaking, it is likely to be a mixture of construction and factual memory. Clinicians would normally agree that some of the experiences remembered in deep hypnosis are actually factual, and it is only this principal possibility which is referred to here.

if necessary, can also change into the capacity to do many things very quickly one after another and thus also be very effective. A simple meditation exercise can help demonstrate this:

Let your eyes rest in a relaxed way on a point in front of you, count your breath in and out from one to ten, then start again. When you lose your thread of counting, start again with one. Anyone who practices this beginner's Zen exercise will see that this very simple exercise is actually quite difficult. A lot of thoughts come between our counting and our breath. We lose the thread and forget whether we have already counted five or are beyond it. We don't recognize that we have already passed 10 and are counting 11, and so forth.

This capacity to focus on one thing and only one, or the capacity to collect one's thoughts, to "concentrate" as we say in our everyday language, is central to all spiritual paths and practices. Different spiritual traditions use different methods, but the goal is, if I am not mistaken, identical. The word "concentrate" is not quite accurate because it suggests a restriction of our field of consciousness that is not necessary when we collect ourselves. It can also be the case that we are completely collected and have a very broad field of consciousness in which very peripheral cues are also completely present. Therefore I have added a third axis into the model which signifies these different types of collection. Collection can be focused onto one point but it can also be very broad and all-encompassing. For example, we can focus on one point with our eyes and see this one point very sharply, or we can look with a defocused view and then have a very broad unfocused view of things. You can experience this in a very simple exercise: Put your index finger roughly 30 cm or one foot in front of your face and try to focus. Doing this you will find that the rest of your visual field becomes de-focused. Conversely, if you try to see the rest of your visual field sharply your finger will become de-focused. However, there can also be states of consciousness in which you can do both. This is difficult to represent in our graphical image. If consciousness is completely collected without specific thoughts and content, then it can also be simultaneously very broad, and content that was not accessible before can enter our field of consciousness – ideas, perceptions, thoughts, images, affects – and can be of all-encompassing totality, described as states of highest clarity. In this situation we have a collection of consciousness or concentration and a broad focus at the same time. Here we can imagine the metaphor of a globe, where the pole of concentration leads into that of broadening out. Stated differently, collection can be reached either via concentration or via a continuous broadening of our field of consciousness. At the end of the path they meet each other. The first way, that of concentration, is the way of many meditation exercises that use repetitive structures, for instance Vedic Tantra meditations, the Orthodox Hesychastic⁷ Jesus Prayer, certain types of Zen Meditation or some Tibetan Meditation exercises. The second way, which is more or less expansive, is that of Mindfulness Meditation, of some traditions of Christian monastic practice such as the singing of plainchant, or the way of Jewish Kabbalah (Lancaster 2000, 2011).

⁷Hesychastic is the adjective derived from the Greek term Hesyche, meaning stillness, quietness. (See Louchakova 2005).

I assume that the effect is the same in the end, and that our state of consciousness reaches the other pole so that both things are realized at the same time as if those poles had met each other in the shape of a globe on the other side. This distinction is also a little bit artificial, since if you want to really experience and practice mindfulness, then you also need the capacity to stop multiple mental processes and to focus and concentrate. Reversely, full concentration automatically enables you to be mindful in the broad sense of the word.

Let us finally introduce the fourth dimension, time, into the model. This is difficult to do graphically, but you can easily visualize what happens when the model isn't static, but dynamic. In that sense micro-states of consciousness can be seen as symbol snapshots that make up a film of how consciousness changes over time. This film would show how states of consciousness change and grow into each other, for instance from being dispersed to concentration and back. If taken over a longer period of time it would perhaps also show that the quality of consciousness as a whole is changing in that longer states of collection or focus can be possible while others change or the other way around, and so forth.

We can now add certain states of consciousness to the map. This is not necessarily a definitely clear process and is only meant to show that some ordering and distinction is possible and how seemingly similar states of consciousness can actually be qualitatively different. The state which we know best, the state of our everyday consciousness, is probably very close to the pole of distraction, would be a mixture of conscious and unconscious operations, and would be near the zero line between the poles of concentration and expansion.

Somnambulist states, i.e. states where consciousness is completely dissociated from our body, as they were studied in the beginnings of research into hysteria and hypnosis and as can sometimes be experienced when children sleepwalk, will be furthest down the line on the dimension of dissociation and the same time would be completely unconscious. Anyone who has had children knows that it can sometimes happen that when they speak in their dreams you can talk to them and they may even answer or stand up and go to the toilet, drink a cup of water and then go back to sleep. If you talk to them about it the next day they don't remember anything. Perhaps the dimension of concentration and expansion is irrelevant here because these states are not conscious. Polar opposite to those states would be such states of deep absorption as are known from all traditions of meditation or religion. In the yoga tradition they are called Samadhi, in Zen Zanmai, in the Christian tradition, for instance with Ignatius of Loyola, they are called states of grace or contemplative prayer, and so forth. (I am aware that this is a very simplified view of things and that one probably would have to introduce a lot of differentiations; however I am just interested in overall structures here). If we move further down on the dimension between collection and consciousness we would probably place enlightened consciousness here, outside of the system altogether. Here the separation between concentration and expansion would be irrelevant, and also, in the same sense, the separation between conscious and unconsciousness. This experience is called Satori or Kensho in the Buddhist tradition, i.e. Insight into the True Nature, or Enlightenment, and union with God in the language of the Christian mystical

tradition. This is likely to be the experience of unification that Teresa of Avila, Ignatius of Loyola, Hugh of Balma, Bonaventure and others have described. Although it is difficult to name a phenomenological difference between enlightenment and ecstasy, I assume that it is useful to introduce a differentiation here. It is likely that the difference is that with ecstasy we can also see aspects of dissociation and not necessarily the same type of collection. Perhaps ecstasy is also associated with a more expansive quality of consciousness. Here I am not interested in definite and true locations but simply in demonstrating that differentiation of different states of consciousness are useful. Deep hypnosis, for instance, would have to be clearly separated from those states of meditative absorption or collection.

Hypnosis also has a stronger component of collection than everyday consciousness: At the same time it also has a very strong dissociative component and is closer to unconscious cognitive content. It may be indifferent along the concentration/expansion pole, or vacillate back and forth on this dimension. States of waking trance which we experience when we are absorbed by an imaginative world, when daydreaming for instance, are more strongly conscious and closer to the dissociative pole. Finally, we can denote states of consciousness that are highly collected but unconscious. It is likely that certain forms of deep sleep belong to that category in which our mind is intensively absorbed with something but we do not realize it because we are sleeping. We then note that this has occurred because we may wake up with a problem solved, or have a creative idea that jumps into our awareness at the border between sleep and waking. The chemist Kekulé is said to have found the structure of the benzene ring in this way and a lot of similar examples of creative insights are documented. There are, of course, also types of deep sleep which are indifferent. One could also introduce states of drunkenness or states of being high on drugs. Depending on which pharmacological substance has produced it, some would be closer to distraction, others would have a stronger conscious or unconscious component and would be likely to be on the expansive side of consciousness, although, from lack of experience, I would not venture to clarify this further.

In addition to those three dimensions together with the dimension of time, we could add a fifth dimension, although this is difficult to fit in graphically. (And with this simple fact we can see that we could probably produce more complex and differentiated maps.) We could, for instance, add the relationship of consciousness to an object and differentiate according to self or other.⁸ Depending on whether our consciousness has a concrete object that is “outside” or “inside” as its point of reference, we need different notions and structures to order this. For example, there could be complete absorption and deep concentration when perceiving and watching an object, when writing or reading a text, when watching a film or when immersed in a beautiful landscape, or it could arise as a consequence of our consciousness being drawn inwards. Ecstatic states of consciousness could arise through participating in a group activity that induces trance or in a sexual act, and in that sense are related to somebody else. However they could also arise as a result of

⁸This would be Brentano’s “intentional relationship” that, he said, was characteristic of consciousness.

our consciousness being drawn inward and as a consequence of spiritual practice. Perhaps here again these extremes meet in a globe shape. Anyone who has seen Bernini's depiction of Teresa of Avila in Rome will admit that this depiction of mystical ecstasy is very similar to a sexual orgiastic ecstasy.⁹ In the same sense, we might experience distraction because we are directing our attention outward to many different things at the same time, because a lot of sensory channels are open but there is no focus on any particular one. But we can also experience distraction although our sensory channels are reduced in order to meditate, we can close our eyes and formally do everything that needs to be done to be collected and nevertheless be unable to focus our mind. It vacillates and wanders between different contents without registering any particular one clearly. We know such states of mind when we are unsuccessfully trying to get to sleep but our mind is still focused on itself, or when we are very tired and we let our thoughts move along without a particular intention.

Collection and a clear turning in of our consciousness on itself is obviously not simply something that happens automatically. It needs a certain type of exertion, perhaps discipline. In the same vein, to decouple our mind from content or to suspend our inherent intentionality, to use a phrase of Franz Brentano, is not a natural state, but requires practice and discipline.

5.1.1 Collective Culture or Lack of Culture of Consciousness

We can see that a differentiated view of consciousness is not only possible, but also necessary. We can also see that our normal state of everyday consciousness is not a particularly special state of consciousness at all. If we restrict our thinking, our cognitive activity, our culture of consciousness in general only to that dimension of everyday consciousness, it is as if physics had tried to gain a valid theory of matter by only studying crystal lattices, ignoring all other states of matter. It is pretty clear that we would not have reached our current theory of matter that way. Using this analogy we can understand that a differentiated usage, cultivation and knowledge of states of consciousness can be very useful, if not necessary, for the survival of mankind.

I have already hinted that implicitly and unwittingly we use different states of consciousness in our culture. However, these move mainly towards dissociation and more often than not reduce consciousness and, with very few exceptions, are neither expansive nor concentrative. If my analysis of our culture is adequate, then we are on our way to move collectively, more or less consciously, towards a culture of dissociation and distraction. We give up at our peril all those elements that would be useful to offer counter-poles to distraction or to help people to integrate contrasting elements into their daily living which would help modulate everyday consciousness.

⁹Whether it is actually true that mystical and sexual ecstasy are the same is quite another matter. Perhaps this is the only way Bernini could visually transport the meaning of ecstasy.

Here are a few examples: Anyone working in a demanding job today has a lot of things to do at the same time, or at least it appears as if this were the case. Therefore we try to do a lot of things in parallel. When pressure rises we try to do more things in parallel and move along the axis collection/distraction ever more towards the pole of distraction. We get tired and are fatigued which creates a negative mood. We try to lift that negative mood by drinking a pint or two. At the same time we listen to music or watch television. Perhaps we also meet with friends at the local pub and we then say that a little distraction is good for us. Often we are also trying to reduce consciousness – perhaps because of how unsatisfying our job situation is or how little help we find in our marriage or relationship, and so forth. We do this by distracting ourselves, for instance, by watching films or using alcohol or other pharmacologically active substances. Most of the culturally accepted strategies we have at hand to cope with job strain, the demand of multiple activities and with the negative mood that accompanies this, lead to more distraction. This is only ended by sleep, if we can get to sleep. Many people even try to shorten their sleep time in order to be able to fit more activity and distraction into their day.

There are of course a lot of other ways to change our state of consciousness. One way is participating in mass activities – large concerts, demonstrations, or sports activities like football. In these mass activities we normally enter a hypnotic atmosphere that induces a trance-like state. Ideally this also leads to a certain expansive quality of consciousness, which is probably the reason why these activities are so popular. They also provide a counterpoint to our everyday experience. In such mass experiences, our isolated post-modern individuality can break out of its difficult attempt to keep up a façade of important identity for a short time, and can experience unity with others and a lowering of the threshold at which we suspend our ego boundaries. The same goes for the widespread addictions to drugs and sex.

Some people are active in hobbies for a change from their daily routine. These would also be useful to analyze from the viewpoint of how they change our states of consciousness. We may play a musical instrument, join a choir, or play in a band. Ideally these activities generate a mixture of concentrative and expansive concentration, but may also have strong unconscious components depending on the type of practice. Others are active in sports. Here again each different type of sport will engender a change of states of consciousness. Some enjoy driving their car or traveling by train through beautiful landscapes. This allows them to enter a trance-like state and to find some distance from their everyday way of life. Others may be creatively active or attend cultural activities. All of these have a certain component of collection. Finally, most of our western cultures also allow for ordered orgies which provide us with a controlled way of losing control, such that ecstasies, trance, and drunkenness become socially acceptable. In our culture this can be experienced with festivals and certain parties or dancing activities. Other cultures have religious feasts for the same purpose. In our Middle European countries we used to have multifarious large and small church festivals which offered the opportunity to break away from everyday routine. Here constitutional religion had an important function. Apart from the cognitive content, a lot of implicit techniques and practices that

change consciousness are part and parcel of religious practices, and legitimized these changes of consciousness through their embedding in the overall culture. For instance, the repetitive formulas of prayer are perfect elements to foster concentration. A multitude of small elements that induce micro-trance were used during religious rituals, ranging from elating music to bells, boring prayers, or incense, all of which helped induce concentration.

The loss of these elements in our culture leads to a loss of natural counterpoints that could help people to counter the distracting effects of everyday life. Many people nowadays are actively searching to fill this vacuum, for the current provision of official churches does not offer that element that is most important and most sought after: spiritual experience, which actually presupposes a type of collection and concentration. I assume, and will later clarify and give reasons for that assumption, that only a special form of concentration in consciousness, either via concentration or via expansion but on the pole of collection, will actually allow spiritual experience systematically. The emphasis here lies on the word “systematically”. Our consciousness is flexible and fluid so that as a system with a lot of non-linear properties it can reach deep and spiritual experiences from many different positions and via different trajectories. This may even be possible in drunkenness. It would probably also be possible during trance mass experiences, although here we would have to discuss whether the quality of the experience and the robustness of its effects are the same. Also in good old Christian tradition we may point out that nothing is impossible and grace can always act in every place and state of consciousness. Admittedly this is the case, but it still leaves open the question and the problem: What type of state of consciousness is most likely to be conducive to spiritual experiences? Put differently: What is the state of consciousness in which grace can act most swiftly? Experience and tradition suggest that this most easily occurs when we oppose our natural tendency to distraction and systematically cultivate acts of concentration and collection which allow our consciousness to both condense and widen at the same time.

In order to anticipate a useless discussion at this point: In each and every serious spiritual tradition, except perhaps the teachings of some sects, we have the teaching that this final experience, which in the Eastern tradition is called enlightenment and in the Christian tradition is described by the image of unification with God or the realization of the Christ nature, is always one that cannot be fabricated and produced at will in order to produce our own salvation as some, especially traditionally Christian or fundamentalist circles, fear.¹⁰ This final experience is always, even for one who is systematically practicing, one that cannot be produced on demand. The Christian scholastic tradition coined the phrase “grace that perfects nature”. In that sense, what I am proposing here is actually good

¹⁰Different traditions emphasize different sides of the coin. In fact it will always be a mixture of practice and personal striving, letting go and receiving “grace”. P. Lassalle, a Christian Jesuit practicing Zen used to say that although grace is an indispensable element of the Christian tradition it does help if we make an effort and walk half way towards grace by practicing (Enomiyama-Lassalle 1992).

scholasticism: Grace perfects what exists from nature or what has been worked at. If man's nature is not trying to anticipate grace St. Thomas would say that grace has more trouble and would probably be also less capable of perfecting itself. In the same way, systematic practice of collection is the best way to pave the way for grace. Using neutral language we can say that the practice of collection and concentration can lead to perfected collection and absorption. This is a state that can be practiced systematically and can be learned. This is, in my view, the end of what can be practiced and achieved. Then follows the realm of experience, which just happens. This may exhibit itself in many different ways and ordering or classifying these different ways of experience is not my task here.¹¹ At this point my intention is very limited: I want to make plausible that the differentiation of states of consciousness in the sense of a cartography is necessary in general terms, and to argue that most of the ways in which we change states of consciousness in our culture do not contain those elements that are normally necessary to help foster a spiritual experience and to deepen the spiritual path. At least, not if we give credence to the experience of those who meditate, their teachers, and the classical texts. A cartography, in general terms, is useful because it makes clear that our everyday state of consciousness is only one of many states of consciousness. And a clearer reflection on a culture of consciousness in our culture will quickly show us that we are about to ban all those elements from our culture that are working against dispersion and distraction.

Our culture has become more hectic. Everything has to be done more quickly, more efficiently and at a quicker pace. Rarely do we have time to ponder, to sense and to adapt with our inner senses unless we actively take time out. Taking time out, however, is not supported by our culture. The fun culture of our post-modern times forces us to do even more in our free time of what we do already in our work time,

¹¹In the same sense, I also think that attempts to produce definite cartographies or maps of the transpersonal and spiritual realm are very naïve. It is beyond doubt that there is a long list of descriptions of such experiences, starting with detailed descriptions within Christian Mysticism, for instance by Teresa of Avila, and up to the elaborate maps of Yoga or other Eastern traditions. However there are also the questions of whether these maps are comparable, whether phenomenally similar states are really similar, whether all speak of the same thing, and so forth. Therefore it is probably better to tone down one's goals and to try and reach clarity about those stages about which we can find consensus, without one tradition trying to colonise another and trying to suggest that the states described by it are better than those of others. This may be applied to both directions: towards the East or West. The East is very popular with transpersonal psychologists, many of whom think Eastern traditions have experiences and states of consciousness that are superior to the ones described by Christian authors. They think that these Eastern states are deeper and wider in terms of spiritual experience: Very often such an opinion is born out of a lack of knowledge. The same is also true in relation to the West where some Christian theologians think that the idea of personality and the theology of Grace are theoretically superior to apersonal Eastern concepts. If we were able to leave those dogmatic discussions aside for a moment and find consensus about the way that leads to the threshold before discussing the furnishing and the number of rooms in the house, we would have already gained a lot. In this sense I am not interested in describing the house that many of those who talk about it have never entered. It is sufficient to give a description of how to reach the threshold.

namely to distract ourselves. While during pre-industrialized times time after work was, by necessity, a time to rest and to ponder because of a lack of alternatives and a lack of lighting, time after work today has become a social stress for many people which does not end the distraction that our job has brought, but prolongs this into different areas. Even two decades ago there was a clear rhythm between activity and quietness, but nowadays this is ever more blurred. Engines don't need relaxation and so we humans have to bow to this tyranny of maximizing profit. The discussion around how shop opening times should be relaxed in Europe shows that we have lost the sense of threat to our culture. By expelling established religion ever more from our secularized world and how we shape it, we have not only freed ourselves from the negative side in the sense of Enlightenment, i.e. from dogmatism and tyranny, but we have also lost the positive sides which were still there notwithstanding all the dogmatism: the order of time and daily activities which, when enacted consciously, would allow for spiritual experiences in small dimensions; elements of collection that were normal within the daily and weekly rhythm; places and spaces which, if not allowing experiences as a regular event, made them at least possible. All this has been discarded with the expulsion of religion from our culture. I do not want to moan here. The secularization of Europe and the Western World is a consequent step of the Enlightenment and therefore a historical fact that needs to be understood and accepted before we can develop new things. Backward focused restoration of what existed yesterday cannot be the solution for problems that have arisen out of that secularization. Such a restorative stance would be a-historic, and in that sense also irreligious in a very deep way. For most religions, at least the Christian one in its recent interpretation by the Vatican Council, acknowledge that whatever way history unfolds is always a collective way of a deeper realization of God in the world.

But these examples show that we have to regain spaces for spiritual collection that have been lost in a time that got rid of formalized religion. We have to build a new culture of secular and non-dogmatic spirituality which affords us counterweight to the centrifugal forces of dispersion and distraction. What such a culture would look like and what we might expect from it I want to sketch below. However, this much I can already state here: A new culture of collection and concentration will call on the individual to take responsibility for his or her state of consciousness at any given time.

Before we can do this I have to explicitly lay out one implicit connection which I have drawn: the one between dispersion and negative affect or between concentration, recollection and positive affect respectively. Put differently: We have to clarify why someone should even consider starting to undertake these practices and to let go of the easier and normal way of dispersion ever new. Is it true that dispersion really is the root of our problems as I am suggesting? Is it also true that dispersion, multi-tasking, and a "fun" society are also bad for the personal and general good? I will try and clarify these assertions in the following cursory section about the neurobiological and neuropsychological sides of our consciousness before we progress further.

5.2 Neurobiology and Physiology of Concentration and Relaxation

5.2.1 *Psychoneuroimmunology and the Physiology of Stress*

We know, globally speaking, that all our emotions, affects, and our inner interior states have concrete, physiological, material reverberations. These are not clear in all their details, but the fact that this is generally so is beyond doubt. Some modern disciplines of research have contributed to deepen and concretize these insights. One such discipline is psychoneuroendocrinology, which clarifies the question of how psychological states such as positive or negative affects, stress, and psychological habits reflect in changes of hormonal reactions, which in and of themselves can produce different bodily and psychological behaviors. Another is psychoimmunology, which over the last few years has shown that psychological experience can unconsciously influence another important bodily function, namely our immune system. The central insight of psychoimmunology is that even the immune system can be conditioned, i.e. that our otherwise automatic immune reactions can to some degree be shaped by psychological processes such as learning. Thereby we can understand how immunologically mediated bodily reactions can arise and be upheld by psychological states or experiences.¹² Both directions in research have been combined over the last few decades into psychoneuroimmunology because we have started to understand that nearly all hormones can also have functions within the immune system and, inversely, that most elements in our immune system interact with the hormonal system (Ray 2004; Blalock and Smith 1985). The immune system is a kind of sixth sense. It senses the difference between “self” and “foreign”. The hormonal system is our bodily regulation and signaling system. These two systems combine as one single regulatory system that allows upholding the functional boundaries of the organism towards the outside, and the adaptation towards the inside.

These processes normally function without conscious perception. For instance, when we come into contact with the rhinovirus, which has the potential to infect us with sneezing and flu-like symptoms, our immune system will launch an immune reaction which we do not experience and, ideally, this reaction ends with the elimination of the virus without us even recognizing that contact with a virus has occurred. Every day millions of such immune reactions happen without us even being aware of them, and only when, as an exception, such an immune reaction is unsuccessful will we consciously experience the consequences as symptoms of an illness such as flu or infection. Every day our body regulates the interior milieu of our organism so that we can be maximally active. In the morning a rapid rise of cortisol helps us to reach our activity level – body temperature, blood pressure, heart rate and general

¹²The basic experiments have been conducted by Robert Ader. In the handbook which he edited with his colleague Cohen there is a competent review of the current literature on all possible topics (Ader and Cohen 1975; Ader et al. 2000).

metabolism rise – and thus we are prepared to wake up and get out of bed. In the evening the excretion of cortisol is reduced unless we work against it, and thus we are prepared to rest. A lot of such cyclical processes happening all day long are coordinated through various timers, the most important of which is melatonin, the hormone of the pineal gland. The excretion of this hormone is strictly dependent on the perception of light and, in turn, it regulates other hormonal systems. In the evening, with increasing red spectral power in the light and with the beginning of darkness, rising excretion of melatonin induces tiredness so that we can rest. In the morning, the perception of the blue band in the light spectrum triggers an inhibition of melatonin. A lot of metabolic hormones regulate our intake of food, rest, and digestion over the day. If we have to react in the short-term to stresses and strains there are various systems in muscles and in our brain that help provide us with the necessary energy resources. In this case, an immediate central nervous axis leads from our perception of threat or strain, through our brain and the adrenal glands, to excretion of adrenaline and noradrenaline (epinephrine and norepinephrine are the more recent and nowadays accepted names) which mediate the stress reaction.

These connections between our sense organs and our brain run in neuronal circuits in such a way that they are analyzed in thalamic nuclei regarding their threat potential even before we can consciously experience them. In this way physiological activity is promoted unconsciously even before we can counteract or initiate behavior. This has a very good physiological reason: A biological system cannot indulge in the luxury of consciousness and allow itself the time delay associated with it if it has to react against an immediate threat. However in our complex environment it can easily happen that signs and signals produce these threat reactions, with all their hormonal consequences, without us realizing it. These perceived threats could be subconscious noise such as we experience with traffic or office noise or the continuous ringing of mobile phones. They could also be visual cues or a flood of stimuli in general terms which we see without recognizing or analyzing the content consciously.

Other hormonal systems deal with the cycles of sexuality and reproduction and intimately interact with the other systems. All this happens without us even noticing it or doing anything, and is geared to optimizing our individual organismic activity. When highly emotional situations or charged psychological reactions or affects occur they have direct and very complex effects not only on our endocrine, but also on our immune system.

How is this experienced concretely? Let us demonstrate it using a few examples. Let us use the famous stress reaction. In an acute situation of danger – let's say a child playing in the street runs in front of a car driver – our whole system signals “danger”. Even before we have a conscious appreciation of this danger a direct neuronal circuit through thalamic nuclei leads to a sympathetic autonomic nervous system activation (ANS). It is called “autonomic” because along with the central nervous system, which is responsible for voluntary motion and conscious analysis of stimuli, it can act completely separately and autonomously. The dangerous situation is analyzed in the brain nuclei before conscious experience and perception can even register the danger. The ANS has already reacted and centers in the brain stem

have been activated and are in turn mobilizing the cardiovascular system. The adrenal glands have been activated and adrenaline and noradrenaline have been excreted into the bloodstream. These hormones will lead within fractions of a second to enhanced cardiovascular and metabolic activity. Blood transports sugar and other nutrients to those places where it is needed: into the muscles and into the brain. All metabolic processes are geared towards “activity”. The heart rate is enhanced and the blood pressure rises. The storage of energy in the liver is stopped and the preparation of energy reserves occurs at an increased rate so that enough energy is available where it is needed. The activity of the immune system will be heightened short term: In acute danger situations with the potential for injuries, and thus infection, the immune system has to be prepared.

Along a second, slower, but more enduringly active axis there is a second system that is activated. It operates via the hypophysis hormone ACTH (adrenocorticotrophic hormone), a hormone that activates the adrenal cortex via the bloodstream, where cortisol, among other substances, will be excreted. Cortisol will also raise the activity level of the organism long-term and will regulate metabolic processes towards the provision of energy. This second axis is working synergistically with the first, but is more decidedly geared towards long-term alleviation of stress and strain while the first axis is geared towards quick reaction. Since the second axis is meant to secure the long-term provision of energy, all those processes that are not necessarily subservient to this goal are reduced. This includes the immunostimulating activity of the first stress reaction, which is counteracted by the steroid hormones such as cortisol. Cortisol and its chemical relatives have a clearly immunosuppressive activity which in a physiological situation is intended to suppress an inflammatory reaction typical for the first phase of an immune reaction once it has started. This is necessary to prevent dangerous reactions for the organism. We all know of the broad usage of cortisone, a steroid hormone related to cortisol that is used to pharmacologically control different inflammatory reactions in the body, for instance in atopic dermatitis, chronic inflammatory arthritis or similar reactions where inflammatory activity is overshooting.

All those processes are immensely helpful because they serve our organism to become active and capable of effective action exactly when it is necessary and to avoid otherwise unnecessary expence of energy. When the strain is over these processes are down-regulated. The second branch of the autonomic nervous system, the parasympathetic branch, will then be more strongly activated and processes that help rebuild the system are begun. We become tired, we feel in need of recuperation, we become hungry and eat, we go to bed or otherwise relax.

These hormonal circuits have been developed over millions of years and have been selected to support long durations of strain. Our predecessors had to live through extremely adverse situations such as long marches to flee from threat, long periods of hunger or shortages of food, and situations of adversity. In times of danger they had to be able to react quickly and efficiently. However, they also had sufficient time for recuperation, and the longest period of fasting was ended by a new source of food. Also, the longest march reached its goal at some point, and the dangerous situation normally passed if it didn't end with the death of the individual.

The fact we should not forget is that we, all of us, are descendants of individuals whose organism, at earlier times, was able to survive under situations of severe strain. This evolutionary argument also explains why our whole society and culture can endure so much in sustained dangerous situations before it breaks.

What sign does an average organism receive to understand that it is time to launch a counter-action? When does a normal organism know that it has to stop activity and start recuperating? Normally this is indicated by the affect. Shortly after its activation each activated hormonal circuit leads, through auto receptors for the hormone that it is activated by, to a negative feedback system. Such a negative feedback system leads to the ending of the activity of the circle. For instance, if adrenaline or cortisol is excreted then auto-receptors for adrenaline or cortisol will cause the activity of that particular system to be stopped unless there are strong and enduring nerve impulses that reactivate the system. Thus all these hormonal processes lead to counter-regulations whose goal it is to down-regulate the activated system and allow the organism to recuperate.

While the catecholamines adrenaline and noradrenaline are activated we normally experience heightened positive affect. We feel full of energy, active and strong, and want to continue activity. This is related to the fact that adrenaline, noradrenaline and other similar hormones which are excreted under stress not only enhance the general activity of the organism, but are also active in centers that activate our motor and motivational centers in the brain. For instance, in depression it is not only serotonin that is important for regulating affect, but also noradrenaline (Rush et al. 2006; Stockmeier 2003).¹³ These hormones which are excreted in the acute stress reaction also have an enhancing activity on affect. At the same time, and probably through the activity of adrenaline and noradrenaline, the endogenous opioid system, the endorphin system, is also activated (Esch and Stefano 2007; Stefano et al. 2005). The endorphin system is likely a very basic stress and fight system that can be seen in very simple organisms. In complex organisms it probably has not only immunological effects, but also psychological effects, enhancing the affect. Additionally, it blocks the relaying of painful stimuli which, in some, also leads to an enhanced feeling of wellbeing and euphoria. It also has immunological effects against viruses and bacteria and can be seen as an aboriginal system of organisms to prevent damage. Even slugs and vermin have such an endorphin system. Because of this affect-raising effect of the endorphin system we sometimes talk of adrenaline junkies in reference to people who are greedy for extra strains and experiences, for instance through risky motor-racing, bungee jumping and other extreme sports that produce this physiological reaction. These people are normally not after the direct cardiovascular, immunological or metabolic effects of the relevant hormones, but the central nervous effects that they can feel, i.e. the heightened well-being, euphoria, and exultation. The physiological sense of this reaction is clear. It is intended to mobilize all the cognitive and motivational reserves we have to counteract a stress situation and to become maximally active.

¹³Noradrenaline and norepinephrine; or adrenaline and epinephrine are equivalent notions. In the modern literature the terms norepinephrine and epinephrine are normally used.

Once the acute phase of this strain reaction is over and the first stress axis is downregulated the reduction of the level of catecholamines (adrenaline and nor-adrenaline) will lead to a reduction in the positive affect. Normally this is countered through the beneficial effects of recuperation and leads into a positive affect, provided we can start the situation of relaxation. The second axis of the stress reaction which is steered via thalamic nuclei, the hypophysis, and the adrenal cortex and is regulated mainly via cortisol, changes our affect which in the first phase is mainly euphoric. This change of affect may also be mediated through immunological changes, namely through the immuno-modulating effects of the stress hormones (Hodgson et al. 2007; Raison and Miller 2003; van Praag et al. 2004; Maes 1999). At any rate, the endorphin system is down-regulated. Feedback circuits will lead to the reduction of excretion of catecholamines. Even though not all the details are known, the effective consequence is clear and we know what happens if enduring strain is not broken through relaxation: we experience negative affect in different shades. This may happen because heightened positive affect is lacking, and therefore a negative affect is perceived as a lack of positive affect. But it can also happen that negative affect is induced physiologically.

We then feel tired and exhausted; we experience a lack of motivation and may even feel depressed. The immunosuppressant activity of steroid hormones can even lead to our experiencing symptoms of an infection so that we may suffer from fever and cytokines, i.e. hormonal substances that are used by the immune system to communicate with immune cells, are excreted by activated immune cells. Cytokines may lead to the typical experiences of severe fatigue, disinterest, and aversion that is so typical of acute bouts of influenza, so that we only want to go to bed and sleep. Normally this would lead to our going to bed to cure our fever and to recuperate.

While the exterior types of stress and strain have changed, the evolutionary mechanisms of adaptation and the reaction towards stress have not changed for millions of years. We are finding ourselves increasingly in situations that our organism has no mechanism to cope with. Most dangerous, in my view, is the disrespect we have for the cyclical processes that are the basis for our physiological functioning. The organism can cope with any type of stress and strain except one that is never-ending. For instance, if a physiological fatigue that is a consequence of a long stress period and which is accompanied by symptoms of tiredness and fever cannot find its physiological counterpart in a period of recuperation and recovery, then the whole repertoire of the organism can be mixed up. We have a lot of pharmacological substances today to suppress such reactions, for instance of fever or tiredness, which make us think we have actually gained control of the infection. Consider a modern worker who has experienced a long period of stress with lack of sleep, a lot of different types of work perhaps interspersed by travel and jet lag, and additional strains of, say, important negotiations necessary for his future promotion, supported by pharmacologically relevant amounts of caffeine, alcohol, and perhaps nicotine. If he comes home fatigued and experiences symptoms of fever, provided he still has the capacity to experience them, then he will go to bed if he is listening to his body and can afford it. His body will then demand the amount of recuperation that it missed during the period of strain. However, if our

modern manager is not willing to do this and takes pharmacological support to suppress the reaction of recuperation of his organism in order to be ready for the next stress that is lingering on the horizon, then he is putting another strain on his system. If his constitution is good enough it might work out. However if he does that repeatedly there is a danger of his immune system going berserk. Perhaps the immediate symptoms of fever and infection can be fought, but the hormonal and immuno-regulatory circuits that have actually led to the reaction still remain active. Then fatigue remains without there being any infection. Fatigue and tiredness, the desire to go to bed and sleep and to not face any negative situations including the negative affect that accompanies the whole situation, will remain although there doesn't seem to be any reason for it any longer. One cause for this may be that some of the interleukins, a partner in the communication of the intricate immunological network, have not been down regulated by the immune system (Atanackovic et al. 2004; Myint et al. 2005; Rosenkranz et al. 2003; Hyland 2002). Normally during a positive immune reaction the immune system down-regulates those components and cytokines that have started the immune reaction. However, if this physiological immune reaction is disturbed by exterior activities such as pharmacological substances, then it may happen that such a down-regulation is not successful. Elements of the immune systems can roam freely and the organism receives the information that there is an infection where there is none.

What I have sketched very roughly here is one of the many pathways by which chronic fatigue syndrome can arise. This is a disease that is rapidly increasing. Those who suffer from it experience extreme fatigue and tiredness that is not improved by sleep and recovery. Patients are very often bedridden and people in their vicinity don't understand why they cannot get up. Since the organism is a non-linear system, there are many ways in which such a final state can be reached. It can also be reached through repeated strains, through chemicals, psychological exertions or stress, or other reasons of which we are not even yet aware (Hyland 2002, 2011).

In this example the cause of such a disease may not even be clear any longer. Perhaps it was the fact that negative affect and the impulse to recover have been disregarded. This is not the behavior required by the body. The reason may have been bland economic necessity to survive. Perhaps our postmodern manager placed more emphasis on career facilities and money than on his physiological signals. Perhaps the whole reason was just a culturally sanctioned deafness and blindness to one's own physiological situation. We are not in the habit of letting a simple flu come between us and our plans. Not everyone has learned to pay attention to physiological signals and to take them seriously. It is difficult for a person to heed their physiological signals in a culture and environment where everybody has learned to disregard them.

We know meanwhile from a series of animal experiments that decisive immunological and endocrinological circuits are conditioned very early in childhood, even intra-uterine, for instance in the way we react to pain or whether this leads to a subjectively changed perception of pain or not (Hodgson et al. 2007; Nelson and Panksepp 1998; Lidow 2002). The capacity to discriminate situations early on, to

understand where we are under stress and to mobilize recuperating activities such as through conscious planning of our time, can help destroy the vicious cycle of stress and inappropriate reactions. In this sense a culture of heightened awareness is a global health prevention measure of the highest degree, as we will see later on.

Severe strain doesn't always have such dramatic consequences as sketched above. However it is the negative affect which, if misjudged or not reacted to, that gives reason to worry. Such a negative affect and inappropriate reactions to it create a host of problems. Some people try to avoid rising negative affect by jumping into the next stress which, through its acute stress reaction, again engenders positive affect. Thus positive affect is bought at the cost of other physiological and behavioral consequences. That can work for a long time, and within an isolated cosmos or within a subculture where it is sanctioned, this can work well. However, in this we are not factoring in all the associated ecological or social costs, for instance, energy or health costs produced by extreme sport or leisure activities. When we take in the whole context, and that always means a view on the whole world, we see that the consequences of a global culture that reacts against negative affect with activities geared towards eliciting stress reactions and the positive affects associated with them is not sustainable. We only have to envisage what would happen if the whole of Asia, China or Africa decided to react by driving utility vehicles whenever they are frustrated. We would quickly see that as a strategy, enhancing extraversion, stress and strain and hunger for new stimuli cannot be a sustainable way of countering negative affect. Thus we have to take other ways of coping into consideration.

Let's use another example to illustrate how important psychological processes are for physical health. We have seen that stress and strain reactions are normally quite helpful. However when they are not countered by relaxing activities or recuperation, then deepened and enhanced negative affect, fatigue, and illness can result. We have used chronic fatigue syndrome as an example. We could have used high blood pressure or another of the immunologically mediated diseases that are so common. For example:

It is common sense that we are more prone to flu or infection when we are stressed. This is also well documented. One experiment by Cohen was classical in that respect (Cohen et al. 1991). In this study, 394 healthy volunteers were directly infected with different viruses, kept under quarantine and observed for a period of time. Interestingly not everybody, although physically infected, was also physiologically infected in a way that was detectable in the blood. Not all of those who actually had the infection experienced symptoms. This is a very interesting finding in itself. We normally assume that infection is the cause of disease. This is only true for very few, very aggressive pathogenic germs, namely those for whom the human organism did not have adequate time to develop immunity through its evolutionary processes of learning. Rabies is such an example. With the normal bacteria and viruses that were used in this experiment, a lot of people had immunological immunity so that although they were physically infected with the germ in their nasal mucosa, they did not suffer from a traceable clinical infection. In these cases the immune system was obviously so efficient that the virus could not even start to develop. In another group of participants, an infection in a physiological/immunological sense was actually provable.

In this group the virus was able to elicit a stronger immune response and could actually invade cells and use their structures for its own reproduction, at least within limits. This could be seen in the fact that the antibodies that were produced against the virus were visible in the serum of these volunteers. However the immune system was obviously still efficient enough to fight the infection quickly and inactivate the virus so that no clinical symptoms were experienced by these volunteers. A small percentage of participants actually experienced clinical symptoms such as sneezing, heightened temperature, sore throat or headache.

We learn from this experiment that the question of whether an organism is infected by a pathogenic germ is not only a function of the germ but also, or mainly, of the efficiency of the immune system. We cannot influence germs. All antibiotic and hygienic measures only lead to bacteria and germs producing resistances and thus being one step ahead of us.¹⁴ We can, however, influence the efficiency of the immune system. In the experiment quoted, those persons who had self-reported more stress and experienced more life events also had more likelihood of becoming clinically ill. Interestingly this is true both for the current stress and negative affect which decide whether a clinically manifested infection will develop or not, and also for the number of relevant stresses and strains in the past. Those are associated with the type and number of clinical symptoms that someone will develop. Obviously acute stress and negative affect have a direct influence on whether or not we succumb to an infection. However our history of stress and strains will decide how far and wide the infection will spread. The reason for that is the previously mentioned immunosuppressive effect of the stress hormones, mainly of the corticosteroids (cortisol). We saw: From a physiological point of view it is meaningful to suspend all those processes in the service of countering the stress and improving recuperation, recovery, and anabolic metabolic processes. However, anyone who is under continuous stress and cannot avoid it is compromising his or her immune system in one way or another. The tendency to infections is one of the less spectacular consequences here. Sometimes immunological derangements may lead to a breakdown of our immune system's ability to distinguish between self and alien. This capacity is the basis of its competence to distinguish between those cells to be attacked and the body's own cells to be left alone. A long list of diseases that are relatively hard to treat can be the consequence of such a misguided immune reaction. It is not always stress that causes this. Often however, stress factors may at least be an accompanying factor or partial cause of those diseases, or may be responsible for the rekindling of a dormant disease. Among them are inflammatory bowel diseases such as ulcerative colitis or Crohn's disease in which the immune system attacks cells of the mucosa of the larger or smaller intestine, as well as a series of rheumatic diseases

¹⁴This does not mean that hygienic measures should be neglected. On the contrary. Our increase of quality of life and survival time are probably mainly due to our increased hygiene standards, as McKeown (1980) has made clear. But one should not assume that we are Lord of the microbes. Each and every aggressive pressure that we exert against bacteria through antibiotics and disinfection will necessarily lead to a small amount of resistant germs that survive and then reproduce. In this way we will always be faced with more resistant bacteria. Bacteria have been around millions of years before humans and likely will survive us.

such as rheumatoid arthritis in which inflammatory reactions against the synovia of the joints are the cause of the disease. The so-called atopic diseases, such as asthma and atopic dermatitis, are kept alive through an over-reaction of the immune system. Juvenile diabetes is also among the diseases where a strained immune system is overactive, along with cardiovascular diseases in which immunological processes are discussed as distal causes (von Känel et al. 2001). These examples are not meant to suggest that all people who suffer these diseases have suffered too much stress or have misdirected their behavior in the face of stress. In most cases the context is much more subtle and complex. In a lot of these diseases, however, it is very clear that stress and strain can exacerbate them, although a genetic predisposition or an infection in childhood may have been the original cause. Sometimes indeed we see a series of strains in childhood as causal at the onset of such diseases and consequently they may then become self-sustaining and independent of stress. This can happen when the immune system learns uncoordinated reactions which can be conditioned. Thus immune reactions can then be triggered by cues and stimuli that have meanwhile lost their meaning.

This can be exemplified by the original psychoneuroimmunological experiment, carried out at the beginning of the discipline. Robert Ader, at the end of the 1970s, conditioned rats by coupling the injection of an immunosuppressive agent with the taste of a sweetener that is aversive to rats. Later, rats showed an immunosuppressant reaction to the sweetener alone, without the immunosuppressant being given. Since the sweetener was aversive for rats there was a coupling of the affective aversive reaction to the sweet taste coupled with an immunological one. By that experiment Ader showed, in principle, that an immunologically irrelevant stimulus, in this case an aversive taste, can modulate an immune reaction (Ader and Cohen 1975). The separation between the allegedly autonomous immune system and the central nervous system had to be dropped. From there it was only a small step to understand the immune system as a “mobile brain”, as it was called by a prominent researcher in a review article, that is in constant interchange with our actual brain (Blalock and Smith 1985). Conscious or unconscious stimuli that influence our affect and our emotions always have direct influences on the immune system, and the other way round. All immune cells have receptors for hormones and vice-versa. There are areas in the brain, mostly in the hypothalamus, which monitor the immune reactions in the body and also modulate our behavior according to our affective situation. I have already mentioned that cytokines, i.e. substances that are used by the immune system to signal its state to its constituent cells, can lead to suppressed affect when we are suffering from an infection, and in consequence can lead to our withdrawal into bed. By the same token some forms of depression can be understood as dysregulations of the cytokine network (Haddad et al. 2002; Rivest 2001; Myint et al. 2005). Although a lot of details are still unknown, the fundamental insight is clear that each and every affective and bodily stress and strain that overshoots our normal range will have strong hormonal and immunological effects, and thereby factors of stress can become causes of disease. While we have no influence on our genetics and the germs that confront us, we can control the factors of stress which we have to deal with to a larger extent. Sometimes they are not under our

direct control, but we can still modulate the ways we react and how we deal with these stress factors. We can either react in ways that are appropriate and constructive, or we can become helpless victims.

5.2.2 Stress, Workload – Demand and Exertion

It is necessary to say a few words with reference to the notions of stress and exertion in order to avoid the misunderstanding that I favor a very boring, constant holiday in everyday life. Our organism is geared towards coping with exertion and stress. It even has the capacity to experience stress and strain as something positive. If we do not experience exertion, exercise, and demand we fall ill. We can see this come true in the many diseases that are caused by a lack of exercise. Exercise demands an exertion – of muscles, tendons, ligaments and bones. If we avoid this exertion, either because we are too lazy or because we have too little time, then we give up the chance to keep ourselves and our body physiologically healthy. Muscles are metabolized, bones dwindle, ligaments become loose and the consequence is back pain and so forth. In the same sense it is also necessary to have the appropriate psychological mental exertion and stimulation. A job that demands all our capacity and sometimes even forces us to confront or even overstep our boundaries is not in itself a health risk. Even a demand to exert ourselves beyond our limit that stimulates us to our highest efforts and demands more than we think we can give is sometimes good, because it mobilizes reserves in us and provides a new stimulation that leads us to growth and a shifting of our limits. What really is a stress is monotony and a lack of rhythm, paired with a lack of decision latitude. It is difficult for us to withstand continuous strain that is not broken by physiological recuperation and recovery. What we resent are strains that have no latitude attached or that don't have a realistic chance of reaching the goal which was set. In organizational psychology it has been found that it is not strain in itself that is the problem, but strain that is not remunerated appropriately and stress that has to be dealt with within very narrow boundaries of decisions such that people do not have any leeway to decide (Niedhammer et al. 2004; Siegrist and Marmot 2004; Siegrist et al. 2004).

The most stressful thing in our whole culture may be that a hectic and unreflected need for consumption is the rule that even produces stress during our times of relaxation in the service of profit. Because everybody plays the game nobody finds it strange. And because everybody co-operates, everyone wants to be part of it. This is precisely the point where we should start thinking.

5.2.3 Neurobiology and the Physiology of Regeneration

If a situation of stress has passed, different physiological processes activate the internal complementary part of the sympathetic nervous system, the parasympathetic system. This activation of the parasympathetic system reduces the availability of free

energy. The excretion of catecholamines and corticosteroids into the bloodstream is reduced. Heart rate and blood pressure fall. The usage of the energy reserves of the body is stopped and the organism expects recovery and recreation. We become hungry and eat. We experience tiredness. Often the body temperature drops and we want to withdraw into a warm bed. Our level of activity decreases and our extraversion, the need to go out and do things, is reduced, as is the wish to experience new stresses and strains. We all know the feeling after exertion, long physical exercise or playing sport that we simply don't want to carry on. If more exertion is necessary this means that we have to mobilize a lot of inner energy. If we are on a mountaineering trip and haven't yet reached the goal, it is good to have short breaks and reduce the intake of food to what is necessary in terms of energy in a form that is available quickly. Everything else, long breaks with a lot of food, will activate our parasympathetic system. If this happens we feel tired and lazy and find it difficult to motivate and exert ourselves further.

After exertion our body will automatically activate the parasympathetic system that produces the necessary recovery. Effectively we experience a lack of energy and a lack of desire to further exert ourselves. This affective situation is used by our body to point out that our energy reserves have come to an end and that we urgently need to have a break. If we then follow this affect and start a period of recuperation, eat, and allow ourselves some laziness, our affect recovers and we feel nice and cozy again, but in a different form to the electrifying positive affect in the initial phase of the strain. This type of positive affect is usually calmer and feels, in terms of everyday language, like contentedness, satisfaction or coziness.

The activation of the parasympathetic arm of the autonomic nervous system has positive affective consequences because the negative affect that has been raised through the activation of the HPA (hypothalamic-pituitary-adrenal) axis is down-regulated. This produces a feeling of wellbeing because the over-activated aspect of the stress has stopped. Positively speaking, the parasympathetic system also triggers other neurobiological processes, not all of which are known. Very generally speaking, we experience the following:

A second arm of the endogenous opiate system, the enkephalin system, is triggered. This stimulates the reward and motivation system in our brain which is mediated by dopamine and serotonin. This leads to positive affect and to a memory of this affect which makes such relaxation and reward situations desirable in the future. It is like laying a positive affective trace. On the other hand, there is so-called constitutive nitric oxide produced in the brain, which has been researched only very recently. It also has positive affective consequences. From general experience we know of the positive anesthetic effect of what is called "laughing gas", nitric oxide. It is so called because of the positive affect that small amounts of inhaled nitric oxide trigger. Different studies have shown, for instance, that due to the positive affective consequences of nitric oxide, one can use it in small doses to treat alcoholics without the well known negative affective consequences that sometimes hamper an effective detoxification (Lichtigfeld and Gillman 1982, 1989). Our body also produces nitric oxide in the central nervous system itself, in a much smaller dosage of course, but in places where it is needed. There it has similar positive affective effects. It also has a series of immunological effects: it is bactericidal and antiviral.

Additionally it dilates blood vessels, which produces the feeling of warmth we generally experience when we are in a deep and beneficial relaxation. Physiologically speaking this is very useful because blood and nutrients will be transported together with immune cells to places where they are needed, where reserves can be filled and potential infections can be combated (Stefano et al. 2001).

Although the parasympathetic activation of the autonomic nervous system also activates the endogenous opioid systems, this seems to be a different branch which apparently is supported by other neurobiological systems. The positive affect experienced during relaxation and recuperation is therefore not only phenomenologically different from the so-called adrenaline peak during the initial phase of exertion, but also has a different neurobiological and physiological basis. Additionally, our organism has ensured that this relaxation response is coupled with a reward system so that we don't forget how rewarding it is to relax.

Through these processes two fundamental antagonistic systems in our body, the stress and strain system that is mediated among others by the sympathetic autonomic nervous system and the HPA axis, and the recovery and relaxation system that is mediated mainly through the parasympathetic nervous system and parallel hormonal systems, are coordinated and geared towards each other. Their interaction guarantees that the organism can face strains and threats while also being protected against too much stress. Normally these processes are active in parallel with sometimes one, sometimes the other system more in the foreground. Healthy physiology is always characterized by a balance between systems and by a quick, unassuming, and efficient change between modalities. This change is characterized by our daily activities, during which we normally experience changes between exertion and exercise as well as relaxation and recovery. But this should also be a change that happens in larger phases and cycles, so that after days with a lot of exertion we should experience periods of relaxation and recovery, and vice versa. If we neglect this rhythmic change, our physiology is in danger of being deranged and our affective experience of the world becomes haphazard. We have to pay dearly for neglect of our physiological make-up by more negative affect, and if we neglect this negative affect we can be sure that sooner or later we have to face a more or less severe disease. The sketches in the previous sections may have made clear that there can be a direct route from strong and continuous negative affect to a disease which is mediated by immunological and hormonal systems. On the other hand, positive affect can support and heal. This is another reason to think about the consequences of stress and un-physiological types of recovery, and perhaps integrate different ways of coping with both.

5.2.4 Recuperation, Relaxation, Concentration and Collection

I hope it has become clear that, and why, exertion and recovery have to be alternated. But why should we be told by some gurus and sages how and which type of recovery we should seek? Is not each relaxation and recovery that is good for us good enough? Should not everyone seek the type of relaxation that he or she thinks

is good for him or herself? Does it have to be a meditation retreat, a workshop on relaxation or a contemplation week? Would a holiday on the Bahamas, an evening at the bar, an afternoon in a football stadium or a nice dinner in a good restaurant not be sufficient to give us the moments of relaxation we need? Does it have to be spirituality and spiritual practice in our everyday life that we need to stop the madness of the hectic and over-demanding life which we are sometimes doomed to lead? Would self discipline in our daily life with clear times for work and recovery not be sufficient, and culturally and politically much easier to implement? Yes, perhaps, and no. Yes, because every type of relaxation, if followed consequently, will have the same physiological effects. Perhaps, because we are sometimes unclear which types of relaxation are really good for us and what we need. Sometimes we are so alienated from our real needs that we don't make the right decisions. As a rule we are often much too dependent on external stimuli, opinions and the example of others, and don't have the inner power and decisiveness to stick to what is really good for us in opposition to the majority of our social peer group. Not to mention the difficulty of finding a lifestyle of physiological balance in a time and culture that supports the contrary.

Perhaps also because we can often become accustomed to a way of life that actually doesn't support us. Most of our senses are very adaptive. Very few of our senses and perception of only very few stimuli do not adapt. These are those for which adaptation might actually be dangerous, for instance, with pain. We know the phenomenon very well from our everyday life. We can be in a room with bad air for a long time without even noticing it. We only notice the lack of oxygen indirectly when we become tired, suffer from a mild headache or cannot concentrate. Someone who enters the room from outside, however, can spot the bad air immediately and will open a window. If that were not to happen, the person who enters the room would very quickly adapt to the poor circumstances. In the same sense we often lack the recognition of larger circumstances that are detrimental to our lives, both in everyday life and in our society at large. We need to exert our senses and make ourselves aware in order to be able to consciously and voluntarily enact a different type of behavior and to counter these detrimental circumstances with our choices. It is very easy to get used to a life with seven working days and sixty or more working hours a week. I know a couple of people who are unable to imagine that their life could run otherwise, and who would think my own lifestyle, in which I try to take at least one and sometimes even a second day off, to be lazy. We can also very quickly get used to the fact that during our free time we don't always do things that are good for us and which we require physiologically, but often do what we think others think is a useful way of spending our spare time. This may be because we think everybody else does it, because clever adverts suggest that this is what we should be doing, or that this or that way of consumption is identical with liberty, freedom, and relaxation. To access our deeper wants and our real need for what is really good for us is not always easy. Others will probably be quick at hand with urban myths that make profit, capitalism, and the economic climate responsible for this situation. One might see a more complex world with even more complex demands as the reason for this situation. But whatever is at the bottom of it all, it is likely that we don't have

easy access within our modern culture to ways of regeneration and relaxation that are really good for us and for our environment if we cannot integrate elements of conscious relaxation, concentration, and distance from our normal way of living into our lives.

In very general terms, however, those questions set at the beginning of the previous paragraph have to be clearly answered in the negative. There are a couple of reasons for this:

1. Recovery, relaxation, and collection are not the same and cannot be interchanged, neither in terms of their nature nor in terms of their effects. There are times when relaxation and recovery without any targeted collection is good for us, times when it is good to let ourselves go and have no pressure whatsoever exerted on us, not even the pressure of spiritual activity. In these times, different forms of relaxation and recovery are useful, not necessarily meditation or spiritual practice. It is then perhaps necessary to be really lazy for a couple of days, sleep a lot, read, do some gardening, hiking or biking, or whatever we need. Sometimes the only real and useful form of relaxation is to consciously let go of every type of discipline in any way. There are also times, however, when this doesn't help any longer. Then we have to use relaxation consciously. But very often our mind is so drained and our mental capacities so exhausted that we cannot find relaxation even when we consciously seek it. Sometimes the key to targeted relaxation is not to find the time to do anything that may relax ourselves, but to raise our consciousness so that we use the time we have usefully to do something that helps us relax.
2. Physiological relaxation is only one, perhaps even the least important, side of spiritual practice. It happens, as it were, as a side effect. Different types of relaxation may be pretty equal in the way they produce physiological relaxation responses. It is likely, however, that they are not similar in the way they change constant awareness of which types of behavior are really beneficial for us and which aren't; how they make us realize our manner of dealing with ourselves and with others; how they change the structure of our consciousness and the way we deal with ourselves and others in the sense of the notion of experience, which I mentioned initially, but also in the way that we are motivated to behave in this way. If we want to learn how to not only symptomatically fight problems when they arise but also to enact changes at the source of the problems so that they don't arise in the first place, then we need more than only useful strategies to cope with stress. Then we need insight into the mechanisms in which we ourselves, through the way we lead our lives, through the goals we set ourselves, and through the way we aspire to them, create the pressure and the stress that we want to get rid of. Then we need a place outside the daily activities of our lives and its necessities from where to look at ourselves and at the landscape of our daily life as if watching it from a distant point. This is the only way in which we can achieve the necessary changes and adaptations.

It is a little like recurrent colds. We have different ways of dealing with them. We can avoid going out and exposing ourselves. When it is cold we may always wear a

scarf and a hat when going out, or may decide to stay in. We can avoid all types of contagion and not use public transport during waves of influenza. We can avoid contact with people in public places. We can also think about strategies to fight infection and carry a pack of aspirin in our pockets. We can take echinacea or herbal teas from grandmother's pharmacy, and the most progressive people may carry some viral transcriptase inhibitors or antibiotics in their pockets. But we can also increase our capacity to withstand infections with an individualized program consisting of regular hot and cold baths or showers, saunas, and an individualized exercise and fitness program outdoors. Relaxation and recovery are similar to the avoidance strategy of fighting recurrent colds. This can be a very useful strategy short term, especially if an epidemic of influenza is presently passing through the country and if we know our own physical susceptibility from our own experience. In the same sense, relaxation helps to avoid unhealthy stress. But they don't change the situation. Fighting strategies of recurrent colds are similar to relaxation: like fighting strategies to prevent symptoms of a cold growing into a disease, relaxation strategies are useful to prevent an overload. But they also don't change the basic situation. An individual program of increasing hardiness is similar to spiritual practice: They both aim to change the whole environment in which disease or chronic stress can become apparent in the first place. Recovery and relaxation are only effective in the way in that they can sometimes produce the preconditions for spiritual experience and deepened insight. Deepened insight in the realm of relaxation practices and recovery are, however, only side effects and not systematic consequences. In that way, spiritual practice is necessary if we are seeking a method that would help to avoid recurrent situations of strain, stress or painful types of interaction, environmental factors that are hostile to life in general, and to change them. Anyone who wants to install deeper, long lasting changes in their lives and who wants to make this change a principle of life, will not be able to avoid adopting some form of spiritual practice.

When we are at the end of our mental resources and our wisdom has burnt out, when we are in a dead end lane in our lives and experience that what we have been doing can no longer help us, when we are looking for a complete new orientation in our lives, then the best method of relaxation and the umpteenth self-help book to find purpose in life won't help if we are unwilling to walk the talk ourselves and find the purpose through practice. When we notice that during our relaxation time and holidays we are running from event to event, don't find peace and quiet and the usual elements of relaxation don't help, for instance, when we are not interested in any films and no book can captivate us, our favorite music doesn't give us goosebumps and no type of sport with our partner is of any fascination, no travel goal can be tempting enough, in short, when we experience an existential unrest that cannot be countered by any quick measure, then it is time to start spiritual practice as an antidote to the general ennui in life. There is only one answer to existential questions and problems: spiritual practice.

This leads to my original motive: Spiritual practice and inner experience have a nice side effect in addition to all the beneficial effects of relaxation, intensification of life, and slowing down of all processes. Namely, they give us deepened insights

into those areas that are so necessary for our empty postmodern souls: deepened insights into the network of meaning and purpose within our lives and perhaps beyond life in general. Ideally this inspires our behavior so that we not only look after ourselves, but also look after others in both a small and large context. The terminology of old for this behavior is wisdom as opposed to knowledge. Wisdom, we learned from the mystical authors of the middle ages, has its name from tasting. The Latin word for wisdom is *sapientia*, from the verb *sapere*, which means tasting. Thus wisdom, in contrast to knowledge, refers to a quasi-sensory type of knowledge that can be likened to tasting. Similarly, as we can express the raffinesse of a good wine or an exquisite meal only partially in words and notions and only our own experience of taste is sufficient to get an impression, so it is also with wisdom as a type of knowledge which is dependent on this individual inner experience. What I have referred to initially as a holistic mode of knowledge in spiritual experience is what is meant by the notion of wisdom.¹⁵ Wisdom refers to a type of knowledge that cannot be gained directly through studying literature and books, just as the direct experience of a good wine cannot be mediated through reading a book on fine wines. Therefore all authors from all religious and spiritual traditions are clear about this fact; only experience itself can teach us what can be experienced in this practice. No book, no preaching, no text can replace our own experience. They may lead us to the threshold, they can motivate, even instigate walking the way, but we have to walk it ourselves.

In this sense the heading of this section indeed suggests a certain hierarchy and mutual inclusivity. Recovery is the most basic notion. Only a body and mind that has recovered will be capable of actually undergoing spiritual practice. Conversely, spiritual practice under these conditions is also a type of recovery. But recovery cannot replace collection. One who can relax properly will automatically recover. Whoever can concentrate and collect oneself will also become relaxed and recover. Inversely, it is not true that each type of relaxation and recovery will also lead to collection and concentration.

5.2.5 Spiritual Practice – Daily Psychological Hygiene

We saw that, neurobiologically speaking, there are a couple of reasons for implementing elements of deepened relaxation and collection in our daily lives. These prevent physiological fatigue and exhaustion of our physical resources. In addition, a regular spiritual practice will also help prevent mental fatigue and existential ennui, because the necessary mental changes will only be effective if we can root them deep in our personality through experience. I maintain that only regular spiritual experience and its deepening can install a habit in us that allows us to react quickly to psychological and physical strains with appropriate measures that allow

¹⁵ It is interesting to note that research in this area of wisdom is becoming accessible again (Ardelt 2004).

us to change unwholesome life conditions because we can spot them in time, or that allows us to adapt if we cannot change those circumstances such that we can live in comparative peace with those circumstances and don't experience a breakdown. To illustrate this a little bit more systematically after having looked at the physiology of relaxation above, let us look at the neurobiology of meditation. From this perspective on the psychology of meditation we will also see how meditation as a daily psychological hygiene can be very similar to other measures of public hygiene such as, for instance, brushing our teeth. Since meditation is probably the type of spiritual practice that is best researched, it is useful to look at it. Perhaps other forms of spiritual practice have similar or different effects, but these can then be derived, at least in part, from the findings from meditation research.

5.2.6 Neurobiology of Meditation and a Selection of Empirical Findings

We have seen that there is a physiological circuit which is geared towards relaxation and recovery and which is accompanied by various processes of regeneration.¹⁶ This is the parasympathetic arm of the autonomic nervous system, which is mainly meant to help us regenerate. Parallel to it there seems to be a hormonal system analogue to that of the HPA axis that supports this relaxation response. This, we saw, happens via the enkephalin system and mobilizes constitutive central nitric oxide, which has a positive affective response. The parasympathetic ANS is capable of reducing the activity of our circulation. Breathing slows, heart rate and blood pressure fall. The vessels in the periphery widen and our whole metabolism is changed towards regeneration. However, this recovery reaction and the parasympathetic nervous system can be actively activated if we use our breathing to modulate the activity of the ANS. This is so because our breathing and our cardiovascular activity – heart rate and blood pressure – are tightly linked via a circuit in the brainstem to the sinus node, the central node in the heart that triggers its rhythm automatically and is influenced and modulated by the parasympathetic system. If our breathing changes this has direct influences on the sinus rhythm generated by the node. If breathing slows down and becomes more regular, cardiovascular activity is influenced, especially the parasympathetically dominated part of it (Grossman and Taylor 2007). This is exactly where most meditation practices start. No matter what meditation techniques we use, they always start with breathing somehow. Whether these are relatively strongly structured exercises such as those used in Qi Gong or Tai Chi, whether the meditative process is guided through targeted and conscious bodily exercises that are

¹⁶This was pointed out nearly 40 years ago by Herbert Benson (1975) and shortly afterwards by Deane Shapiro (1980). Although the knowledge itself is old, there is always a delay until knowledge, academic knowledge that is new at that, seeps into the general consciousness and becomes part of the culture. In that sense a revisiting of these old adages is still useful, I find, especially, since we now have some more powerful methods of neurobiology at hand.

coordinated by breath, or whether the exercises are without any conscious attempt at influencing the breath as in mindfulness meditation where breathing is only observed, it is always the breath in one way or another that serves as the focus of attention. Even if we look at the contemplative practices of Christian Gregorian Chant or rosary prayer, they all have some regulating effects on the breath because certain phrases always have to be said on one breath, or the rhythm of speaking is coordinated via the breath (Bernardi et al. 2001). Even if the breath is not actively changed but attention is directed towards it, it will always activate the parasympathetic nervous system and change the rate of breathing and cardiovascular activity (Cysarz et al. 2004). Breathing is directly slowed either through conscious intervention or indirectly, for even through observation the breath becomes slower. As through the activation of the parasympathetic ANS breathing is slowed down, conversely we can activate the parasympathetic ANS by slowing down our breathing, and this will consequently affect cardiovascular activity. A series of studies using Transcendental Meditation (TM) showed that this can lower blood pressure.¹⁷

Different types of research, mainly from the early phase of meditation research that was triggered by the interest in TM, have reported that meditation leads to a state of deep relaxation which is simultaneously coupled with the highest inner consciousness and attention, but at the same time is physiologically characterized by a hypo-metabolic state. In this state all metabolic processes are slowed down, general metabolism is reduced, breathing and heart rate are slowed, cortisol is reduced, and other hormonal circuits that are antagonistic to stress are activated (Jevnig et al. 1992; Travis and Wallace 1999).

This finding of a reduced metabolism has found more recent support through the sensitive measurement of human biophoton emission. Whenever we are metabolically active, our organism creates free radicals and as a result of the process surplus energy which is radiated out in the form of ultraweak light emission. This is not visible to the human eye as it is only in the range of a couple of photons per second. But sensitive charge-coupled devices, as are used in our modern cameras, can pick up this radiation in a dark room. Measurements of meditators versus controls showed that experienced meditators have indeed a lower radiation of those photons compared with controls, indicating less metabolic activity, less oxidative stress, and hence less photon radiation.¹⁸

¹⁷The most important studies to date are: Anderson et al. 2008; Barnes and Orme-Johnson 2006; Paul-Labrador et al. 2006; Rainforth et al. 2007; Walton et al. 2002, 2004. Whether this evidence is enough to recommend it as a general health measure is another question. I here employ it as an argument that in fact meditation *does* influence cardiovascular activity. Clinical trials always look into the *generalized and minimalized* effect, as participants in trials will always have to agree to be also randomized into a control group, and hence are different to people who actively decide to do something. While it is probably not useful to prescribe meditation like a beta-blocker, it might be highly effective if one takes a responsible decision to implement meditation.

¹⁸This research is conducted by Roel and Eduard van Wijk. See van Wijk (2008a) for a good overview of the research on biophotons in general, also van Wijk et al. 2005, 2006, 2008b. A comprehensive review of this research is available in a book chapter: van Wijk et al. (2014).

Other peripheral physiological processes, such as hormonal changes, are also influenced by parasympathetic activity. In addition to reducing the relevant physiological processes, there is also coordination and harmonization. For instance, in the case of heart rate, it is not only the absolute number of beats that is important, but also the variability, i.e. the change between a fast and slow heart rate. A healthy and stable cardiovascular system is characterized by rapid and high variability of changes and not by a rigid stability. Only quick changes can adapt our system to the demands from our environment, and they are again modulated by how our breathing frequency reacts to these demands (Myrtek et al. 2000; Grossman and Taylor 2007). By using our breath we can also change and modulate heart rate variability, which again leads to synchronization of the total cardiovascular system, with the consequence of a heightened adaptability of the system towards demands from the outside.

These peripheral processes are only some of the physiological reactions, although they may be important. Perhaps even more important but less well understood are the central nervous changes, i.e. those changes that happen in the brain and in the central nervous system directly. At the moment we only have initial traces of knowledge and we are a long way from a complete neurobiological theory of meditation and spiritual experience. Our knowledge is derived from studies of different types of mediation and it is unclear whether we can actually use these items of knowledge from different forms of mediation and extrapolate them to others (Cahn and Polich 2006).

This is a general problem of which we should be aware. Currently, the state of research is very heterogeneous. Some researchers did research in comparatively naïve beginners of a particular practice, others used very experienced meditators of other disciplines, still others had a mix of participants of different types of meditation practice. It is similar to studying the effects of sport using experienced fencers, novice long distant runners, elite swimmers and hobby sky divers to arrive at some knowledge about the effects of sports in general. Surely, the outcome of such a mix of research will be far from satisfying and far from definite. But this is the situation with meditation research. In the future, we will have to clearly describe what type of meditation with what type of practitioners and which particular practice within a tradition was studied. This we do not have at present, and hence we need to be satisfied with very general statements. However, the following seems to be approaching the lowest common denominator.

During meditation we see alpha rhythms in the brain that are characteristic of reduced brain activity. These are rhythmical waves of the electroencephalogram (EEG) in the frequency band between 7 and 10 Hz. They are characteristic of a relaxed waking state with eyes closed and they correlate with subjective feelings of relaxation. In deeper states of meditation we can also see that slower EEG activities in the delta (4–7 Hz) and theta bands (3 Hz and smaller) are increased. They can normally only be seen during deep sleep and are characteristic of slow brain activity and a correlate of reduced central nervous activity. There is also strong activity, however, in the gamma band (in this case, 40 Hz activity) (Lutz et al. 2004; 2008a). This activity is the sign of highly conscious activity and is normally thought to be a

sign of what is called “binding” in neurobiology (Pöppel 1997). This 40 Hz activity leads to our experiencing whatever it is we experience as one and as coordinated between different modalities of our senses (Engel et al. 1997). However, during meditation research studies these 40 Hz coordinations were seen widely over the whole brain for a long period of time (Lehmann et al. 2001). It is difficult, therefore, to really say what in a meditative state of mind these 40 Hz gamma activities could be, as there is no external perception but only internal perception. It could be possible that elements of intensely imagined contents were conscious there, for instance, some imagined mental content such as in a meditation where the meditator strongly envisions compassion.¹⁹ It could also be possible that these 40 Hz gamma activities are a correlate of the inner experience of unity.

However, we have found in studying 60 experienced participants of various traditions using high-resolution EEG that the signatures of individual EEGs are more different than similar across similar meditation tasks and across subjects. Our most impressive finding was that there is no such thing as a “signature of a meditative state” per se. Different individuals seem to have very different strategies and corresponding EEG signatures, and if there is one common denominator at all, then it is *reduced* activity in all bands, probably pointing to a higher efficiency in reaching desired states of mind. While novices need to activate their brains, experts can do this more or less automatically (Hinterberger et al. 2011a, b, Hinterberger 2014). A very similar finding was reported by Brefczynski-Lewis and colleagues (2007), who documented that experienced meditators activated a well-known attention network more strongly than novices. But very experienced meditators showed very little activation, from which we can surmise that they are more efficient in using resources. This curvi-linear relationship, whereby any effect studied is dependent on the expertise of the individuals tested, may also be the reason for the puzzling findings in previous reviews.

As the smallest common denominator, studies of EEG activity show that meditation is certainly more than relaxed drowsiness. We can find clear cues of relaxed mental activity, reduction of mental activity, together with self-reported intensive inner experience at the same time. Thus, meditative states are clearly distinguishable states of consciousness that on the one hand are of great clarity and wakefulness, and on the other hand happen within deep states of relaxation.

But it is not only the type of EEG activity that is dominant which is important, but also the coherence of the activity. This refers to the fact that it is not only single areas in the brain that are active in a certain EEG band while others are active in different bands or less activated. No, it is more that global areas, for instance, the whole hemisphere or the whole brain, are coordinated and coherently active. At the moment we can assume that such states of coherence in the EEG are a correlate of a holistic global activation of the brain, which is, in contrast to modular activity, more a sign of a holistic mode of activity. It is interesting to note that some studies point towards the direction that meditation, especially in progressed meditators, is mirrored by a high grade of coherence in the EEG which oftentimes affects the

¹⁹This was the type of meditation researched in the study by Antoine Lutz.

whole brain or, sometimes, one hemisphere. This means that no matter what the type of activity, globally the activity is spread over large areas in the brain suggesting a global mode of operation (Aftanas and Golocheikine 2001, 2002, 2005; Lehmann et al. 2001, 2006; Travis and Orme-Johnson 1989).²⁰

New theories of personality assume that apart from the modular sequential processes that are a sign of conscious rational and selective processing of information, we also have activity that affects the whole network of the brain. These massively parallel processes that are a sign of a holistic way of information processing are very often not consciously explicable, but can only be grasped in their effective outcome. They mediate what it is for us to be “ourselves” with all that goes with that, such as experiences, hopes, wishes, properties, capacities, and beliefs. This feeling of “being ourselves” is not necessarily explicable in terms of clear notions, but is more a felt sense that gives us deep meaning (Kuhl 1994, 2000a, b; Kuhl and Fuhrmann 1998). These processes that integrate large areas of the brain can be triggered by global correlations of brain activity. It thus could be that the global coherence which can sometimes be observed in the EEG of meditators is a sign of the integration and holistic activity of many single elements into the whole of a personality. They could be the objective signs of subjective feelings of holistic perception, deeper experiences of sense and purpose, or the feeling of holism, which are phenomenologically part and parcel of spiritual practice.

These data on EEG coherence have been reported from different types of meditation, mainly from studies of transcendental meditation which is a modern type of Vedic mantra meditation, but also from meditation within the Tibetan Buddhist tradition or in Zen meditators.

A new research finding is interesting to comment on here: The Viennese neuropsychologist Guttmann has spent a lot of time researching the slow negative potentials of the brain in meditation. These potentials are very slow and are interpreted as the readiness of the brain to react towards stimuli and to prepare for cognitive processes. They shift the whole brain towards an electric negative potential which is interpreted as a preparation of huge arrays of neurons to be prepared to fire. In Zen meditators Guttmann could document a global positivation of these slow potentials over the whole cortex. This is a sign of the decreasing readiness of the brain to become active in higher cognitive processes. A similar result could be seen while the meditators were looking at affective pictures, which normally affect us emotionally. But in this study the activation effect was seen only locally, restricted to certain areas. The positivation of the whole brain in meditation is global. In affective pictures we assume that the positivation of potentials is initiated through a reduced capacity of cognitive analysis because negative affect is induced through these pictures. Stated differently, the inhibition of higher cognitive processes is accompanied by activation of deeper areas which are more important in affective processes. Similarly we can assume that through meditation an inhibition of higher cortical processes is initiated which probably allows for the activation of deeper processes

²⁰This change from dispersed to coherent activity, even though the global activity was reduced, is also a signature of our own study, briefly reported above: See previous note.

that are more important for affect processing. Hearing relaxing music does not induce these inhibitory processes. This is again a sign that meditation is a qualitatively different process to relaxation.²¹

It is interesting to note that Hugh of Balma says that experiential knowledge of God, or the experience of unification with God, can be reached if we *suspend* all cognitive activity – thinking, analysis, imagination – and if we allow ourselves to be carried completely by the “arrow of glowing affects” to the experience of unification which then automatically follows.²² Whether the language that Hugh of Balma uses when he says “affect” is identical to the modern is probably open to doubt. But there is one clear point of departure: The inhibition of higher cortical processes, the mental activity of thinking – imagining, conscious voluntary striving, conceptual analysis – all these processes need to be halted, and this allows for the integration and activation of deeper emotional affective content.

The finding of global harmonization and coherent patterns of processing and of the activation of deeper lying areas in the brain is also seen in more recent studies that have analyzed the brain during meditation with the help of positron emission tomography (PET) or functional magnetic resonance imaging (fMRI). It is important to understand that these methods can only give us relatively coarse grained temporal resolutions in contrast to EEG²³ and that they do not reflect brain activity directly, but only the metabolism that is associated with the activity in the brain. Despite these limitations these methods are quite powerful because, unlike EEG, they can give us clearer local resolution of the activity in higher and deeper areas of the brain. These studies support the findings that have been gleaned by earlier EEG studies: The cortical areas that are associated with cognitive activity are normally deactivated with the exception of those areas that are necessary for the meditation processes. These are often prefrontal areas which are associated with the focusing of attention, and, in visual types of mediation, the respective occipital areas that are necessary for visual processing. Otherwise deeper areas of the brain are more strongly activated and a globalization of metabolic activity can be observed (Beauregard et al. 2001; Herzog et al. 1990; Lou et al. 1999; Newberg et al. 2003).

²¹ Unfortunately this important research is not well published. It is, to my knowledge, only available in a book chapter in German language (Guttmann 2002).

²² “quod solum aspirabit, non cogitabit – don’t think, breathe” is the instruction; see Hugh of Balma’s *Mystical Theology*, V.46. The counting follows the critical edition and is the same in all translations. Original text: de Balma (1995). An English translation is available in *Carthusian Spirituality: The Writings of Hugh of Balma and Guigo de Ponte* (Martin 1997). I have elaborated on the meaning and interpreted his approach in *Notitia Experimentalis Dei – Experiential Knowledge of God: Hugh of Balma’s Mystical Epistemology of Inner Experience – A Hermeneutic Reconstruction* (Walach 2010).

²³ While the temporal resolution of the EEG is in the range of milliseconds, that of fMRI is about one second and that of PET is still slower. But PET and fMRI can give a clearer understanding about the localization of activity, and PET can also resolve questions about which particular transmitter systems are active. While EEG data can also be mathematically reconstructed to give information about deeper resonators in the brain, using methods such as LORETA, this is mathematically not trivial and will only reveal activity in still comparatively superficial structures with any certainty.

Meanwhile brain research into meditative states has so exploded that it is hardly possible to keep abreast, and it would likely take a whole book to review this research completely and competently. I can only hint at a few important findings.²⁴

The first strand of research went into documenting that meditators had more grey matter, i.e. brain cells, in areas relevant for meditative practice. While early studies were purely correlative and thus showed that experienced meditators had more brain matter compared to age matched controls, this did not necessarily prove that meditation actually causes these changes (Lazar et al. 2000, 2005; Hölzel et al. 2007a, b; Vestergaard-Poulsen et al. 2009; Grant et al. 2010; Luders et al. 2009; Pagnoni and Cekic 2007). It could have also been that people who accidentally have those different brain structures are genetically drawn towards meditation. However, more recent studies that compared images before and after a meditation training in meditation novices have shown that these changes in cortical thickness are actually causally related to the meditation training (Hölzel et al. 2009, 2011).

Other types of research used imaging methods to document changes during meditation. This could be documented for beginners in meditation compared with those performing a simple relaxation training. This study also showed that not only brain areas are differentially active during meditation, but autonomic arousal is also changed (Tang et al. 2009). That different types of meditation – focused attention and open monitoring – will produce, as predicted, different activations in the brain could be documented in an fMRI-study of experienced Theravada-monks.²⁵ While during the concentrative part of the study brain activity was somewhat reduced, especially in the left-hemisphere leading to more relative right hemispheric activity, in the open monitoring condition activity was more widespread, more strongly associated with parietal and left-hemispheric activity, and most interestingly, the novices had much greater changes and more activation than the experienced monks. This shows again that it is not necessarily activation that is important (Manna et al. 2010).

This finding of differential activation of various brain structures could be impressively broadened by findings by Farb and colleagues (2007) which also demonstrated through a controlled and longitudinal design that the findings were causally attributable to meditation. They showed that meditators were better able to activate an experiential system which is associated with right hemispheric activity and deeper structures such as the insular cortex which represents visceral awareness of what is happening inside us and is a crucial structure where physiological signals and higher functions are integrated into a primary sense of awareness. Interestingly, focusing on this experiential side of things activates this system and blocks the so called midline-structures: brain structures that are centered around the midline of the brain and that are linguistic-narrative representations of our sense of self. Meditators can inhibit those structures more easily and gain access to their experiential system.

²⁴ A good overview can be found in Ott et al. 2011. See also *Meditation Research: State of the Art* (Schmidt and Walach 2014) for a good anthology of recent data and their synthesis.

²⁵ Theravada is the old Buddhist school that traces itself back to the original teachings of Buddha. Here concentrative types of meditation are practiced, but also open monitoring meditation such as mindfulness meditation is central.

In a second study, sad video clips were shown to participants of a meditation training and to controls (Farb et al. 2010). These video clips activate an emotional network specific for sadness that is characterized by a deactivation of the insular cortex and activation of midline-structures and left-hemispheric language related centers, as well as rostral cingular cortex structures. Meditators, after their meditation training of eight weeks, experience less sadness after presentation of such sad clips, which is correlated with a reduced deactivation of insular cortical activity and visceral representations and a reduced activation of midline structures. This shows quite clearly that meditation training changes the way our brain reacts to stimuli. Very likely meditation does not change the experience of emotion itself, as the participants in the study rated their emotion similar to controls. But as this and our own data make plausible, meditation seems to change the meta-representation, i.e. the way we deal with what happens in our experience (Sauer et al. 2011a, b). This has been called meta-cognitive awareness (Teasdale et al. 1995). This is also the reason why mindfulness meditation has been integrated into a psychotherapy program to prevent depression relapse prevention (Williams et al. 2007), which has meanwhile been accepted as a standard program in the UK and has proven itself to be effective (Piet and Hougaard 2011; Fjorback et al. 2011).

Meditation has been integrated into an effective behavioral-medical training: the Mindfulness Based Stress Reduction (MBSR) program. This is an 8 week training, with weekly group sessions and daily individual meditation practice. The group sessions comprise formal meditation training, group sharing about individual programs, educational content on the relationship between stress and health, relationships, and other content (Kabat-Zinn 1990, 1994, 2003). This training, introduced about 30 years ago, has proven effective in various disease modalities, mainly with chronic diseases where coping is an issue.²⁶ It has also been adapted for other groups such as the previously mentioned training for depression relapse prevention; we adapted it for students (Lynch et al. 2011); adaptations for addictions have been developed and pilot-tested (Bowen et al 2011; Zgierska et al. 2009); it has been used in other therapeutic approaches where meditation has played a role in inspiring the program, such as in dialectical behavior therapy for borderline patients,²⁷ or is an element within a larger context, such as in Acceptance and Commitment Therapy (ACT) (Powers et al. 2009; Hayes and Feldman. 2004).

This extremely short overview cannot do justice to the varied and long tradition of the effects of various types of meditation. But it might be able to show one

²⁶There are literally hundreds of studies documenting this. Metanalytic reviews generally document robust effect sizes of moderate size that are clinically relevant for the issues at hand. However, what is still unclear is the question of whether meditation itself or mindfulness is the decisive factor, or whether it is rather an unspecific effect of the mix of elements. For instance, our own study (Schmidt et al. 2011), which is probably one of the first and very few actively controlled clinical trials, documented a small specific effect of mindfulness versus active control to about a quarter of a standard deviation. For meta-analytic reviews see Grossman et al. 2004; Piet et al. 2012; Keng et al. 2011; Ledesma and Kumano 2009; Schmidt 2012.

²⁷This training was inspired by the author's Zen practice and crucial elements of it are mindfulness and being present in the moment and in times of trouble: Linehan 1993; Linehan et al. 2006.

thing: There has been a lot of research ongoing meanwhile and from this research it is pretty clear that meditation has a definite effect on our brain – surprise, surprise, how should it be otherwise? –, that it is useful for clinical programs as an enhancement of existing strategies, that it can be implemented beneficially to teach people effective techniques to deal with stress, that it actually changes perception, for instance of time (Sauer et al. 2012), and in very experienced meditators the way they actually perceive the world (Full et al. 2013). It helps with emotion regulation in very general terms (Lutz et al. 2008b) and from that we might assume, although it has not been researched very well, that this might also be useful for the dealing with human relationships in a very general sense. Certainly a specific type of meditation, compassion meditation in which others and oneself are visualized to be happy, has clear effects on emotional competency and the way we feel connected with others (Lutz et al. 2004, 2008a; Fredrickson et al. 2008; Hutcherson et al. 2008; Johnson et al. 2009; Kuyken et al. 2010; Pace et al. 2009).

5.2.7 *Theoretical Considerations*

Early theoretical integrations have been given by the academic field known as neurotheology. This notion is an attempt to marry neuroscience and insights derived from it with some theoretical and theological understanding of religious experience. This is intended to help us understand how altered states of consciousness are brought about as the result of meditation or other spiritual practice and what happens in the brain during a deepened spiritual experience. To my knowledge, there has never been an imaging of a mystical experience of unification or enlightenment experience while it was being experienced. It is important to understand that all research to date has either documented effects of normal spiritual meditation practice or vivid *memories* of exceptional experiences. Thus, these theories are attempts to bring together the relevant knowledge from the puzzle of elements which we have already, and to generate some overarching, theoretical understanding. Some elements of the model have already been highlighted above. Here they are summarized.

The neurotheologists Newberg and D’Aquili (1998) differentiate two basic operators in the brain: the causal and the holistic operator.²⁸ These refer to functional units within the brain that are partially identical with anatomical structures but also partially overarch these structures. An operator is a certain type of cognitive processing mode. The causal operator, for instance, is necessary to find dependencies within a stream of given sense data, to locate beginnings and consequences. Causality is not an element in reality, but is extracted by our cognitive system from our sense data and then imparted on it as an abstract concept.²⁹ We may see smoke

²⁸This is similar to what I have mentioned above: sequential operation and holistic operation. A very good comprehensive review of this research is presented by McGilchrist (2009).

²⁹See Chap. 3, where this question has already been discussed.

in the distance and conclude that there must be fire. Or we see regular movements produced by the wind in the grass or a cornfield combined with irregular movements from which we conclude there is an animal hiding there. We see a ball flying through the air, hear a shattering noise and conclude that the ball has broken a window. We look for the cause of this and see, within a group of boys nearby, one who looks a little sheepish, and we suppose that he is the one that threw the ball. In this sense the causal operator in our brain is the system that isolates causal connections from the surrounding data stream. If the causal operator cannot find a usable beginning in the data stream of our senses it just posits the one that looks most likely. In our example we assume that the boy who looks most sheepish is also the one that kicked the ball. This is not necessarily the case. He could be the one who warned the others not to throw the ball in the first place as there was too little space, he could be the one who knows the neighbors are difficult and who is now reinforced in his somber predictions. The causal operator is strongly associated with sequential analysis of perceptual processes and we use it to structure our environment analytically into useful and separable sequential units of cause and effect so we can manipulate our environment more effectively.

The causal operator is very powerful and important in the context of evolution as it has helped us, and still helps us, to extract regularities and contingencies in the appearance of our sensory world. Anatomically speaking, this operator is associated mainly with the left lower parietal area of the brain and thus with the language dominant hemisphere of our brain, and collaborates closely with the anterior frontal area of the brain. It operates analytically by breaking events down into pieces, and is thus also associated with logic and analytic reasoning.

Antagonistically we have the holistic or gestalt operator. This operator is associated with the contra-lateral, i.e. the right and non dominant parietal cortex (this is always only true for right-handers; in left handers things are a bit more difficult, but the principle is the same). The task of the holistic operator is the recognition of patterns and gestalts, the holistic analysis of perceptual situations, and the integration of a lot of additional, very often implicit and not necessarily conscious information.

While the causal operator analyses a complex situation, say the boys having played ball and broken a window, in isolating the potential suspect by the looks of him the holistic operator takes in the whole situation without being “logical”. It does not jump to the conclusion but draws, while “just looking”, on various pieces of information that may be unconsciously available. Without knowing how it might come up with the feeling that would, if expressed, translate roughly into the following sequence “something is wrong here... the guy that looks sheepish cannot be the one responsible for breaking the window... ah, now I know, the other one in the back, laughing, I remember him... he is a notorious trouble-maker... I saw him once breaking into a car...” The point is: What the holistic operator does is normally not easily translatable into language as it is mainly associated with right-hemispheric activity that has no easy access to language, but comes up with some “felt” truth.

In order for the holistic operator to be able to do this it has to draw on a dearth of information. This information is widely distributed within the cortex. While the causal operator resembles more a sequential analytic process, the holistic operator

is rather a massively parallel process. The operation of holistic recognition of gestalt and patterns is known to us from our own experience: We see a person or we think of someone in a certain circumstance. This person may only be vaguely known to us and we lack clear information on them and perhaps cannot think of their name. There is something in the sound of their voice, in the way they move, that is very familiar to us. Perhaps we also are involved in doing something else while a search process is ongoing without us even realizing. Meanwhile, a lot of associative connections are built implicitly until suddenly the name springs into our consciousness or a clear image or memory comes to our mind. Or perhaps we see something, encounter a person or a certain situation, and suddenly we have a clear impulse to do something or a feeling without knowing where it is coming from, why it is arising right now or which element of our field of experience has actually triggered this. Our gestalt operator, having very rapidly analyzed the situation holistically, very often via subcortical and not necessarily conscious connections, has produced a plan of operation which feels compelling to us but which we could not explicate in terms of why and what we have to do.

The gestalt operator is active via a widely distributed parallel network of systems in the brain and has the task of holistically analyzing a situation. It often has to cope with insecurities and fuzziness and it helps with the intuitive, rapid, and implicit appreciation of a situation, or with the recognition of patterns. Very often we can see by the results that it is useful, but can't see all the processes that have led to the decision of how to behave or react. It works by integrating a lot of information holistically.

The causal operator, on the contrary, is sequential and analytical, taking streams of data apart into small units. In order for its result to be useful the analysis has to be comparatively close to consciousness, even though there may be a lot of elements that we do not always follow explicitly and consciously. While the holistic operator is dependent on including a lot of information from different channels, like a wide angle objective in photography, the causal operator is based on the isolation of central elements within the situation and is more similar to a tele-objective in photography.³⁰

These systems can also operate in parallel. Nevertheless there will be a focus on one or the other system depending on the person and the situation. While one person

³⁰It is interesting to note that this neurotheological model of Newberg and D'Aquili is very close to the model of personality developed by Kuhl, personality system interaction theory. This also assumes two antagonistically operating systems that are anatomically identical with the two hemispheres. The system that is associated with the left language dominated hemisphere is called intention memory. This consciously focuses on information about aims and goals and is associated with the object recognition system. Its task is the conscious recognition of a lack of coordination of inner goals and outer situations or, in general, the conscious and focused analysis of situations. Both systems together are analogous to the causal operator. Kuhl calls the system that is associated with the non-dominant i.e. right hemisphere of the cortex "extension memory". This is a mainly implicit and unconsciously operating system that carries all representations of oneself, and is mainly effectively associated with episodic memory. Associated with it is the intuitive behavioural control, which contains automated routines. These two systems are analogous to the gestalt operator. See Kuhl 1994, 2000a, b.

may be more strongly holistically biased, somebody else may have a particular gift for analyzing situations. If we, for instance, perceive a work of art we will probably vacillate between the two processes: Initially we will probably perceive the image holistically, the colors, forms and gestalts, and try to perceive the emotional message of the piece. Later on we may shift towards a clear analysis and will perhaps read about the title and the artist, the context in which it was produced, and the conscious language used in the image etc.

Neurotheology assumes that through different types of spiritual practice a decoupling and activation of the holistic operator is achieved. On the one hand it is activated. On the other hand afferences from the sensory channels are being curtailed that normally provide information to it. At the same time the causal sequential operator, which is also responsible for language and logical thinking, is laid dormant, as there is nothing to analyze in a situation of mild sensory deprivation where no sensory input occurs. Thereby the experience of holism, which is phenomenologically typical of spiritual experiences, is enabled. This is strongly associated with positive affect. Since the referent for this activation is not in the outside world but in the inside world, this engenders a state which is called by the authors "*the experience of absolute unitary being*" (AUB). This can happen because different elements of the exercise activate the parasympathetic and the sympathetic system simultaneously. If we activate the parasympathetic system initially, the balance is tipped in the end towards the antagonistic i.e. sympathetic system, which is also activated and vice versa. In this way both ecstatic trance techniques and calming meditative techniques can, in the end, yield the same final state.

In a meditative repetitive technique, for instance a mantra meditation with a focusing of attention on breath and sound, an activation of the parasympathetic system will be achieved through the calming of the breathing and the focusing of attention. At the same time the repetitive structure and the shutting down of the sensory channels blocks the causal operator, that is, our cognitive activity is suspended, and the holistic operator is decoupled from all sensory connections to the outside world. If this happens intensively enough, according to the theory, we can at some point through strong and exclusive activation of the parasympathetic system reach a state in which the antagonistic system, the sympathetic system, is also activated. This dual activation will lead to a strong arousal of the holistic operator together with all the deep brain structures, such as the thalamus, and will produce the experience of absolute unitary being or the spiritual experience of unity.

We can also imagine reversing that pathway if we, for instance, activate the sympathetic system through repetitive trance techniques, such as through ecstatic drum dancing, while at the same time, through repetition and through a lack of change in sensory stimulation, deactivate the causal operator and activate the holistic one. If we imagine that all our sense channels are always geared towards discovering differences and that they adapt to repetitive structures very easily, we can understand that intense repetitive sensory stimulation can have the same effect as a reduction of sensory stimulation. Thus the situation in which we have repetitive activation will also silence cognitive activity. If the sympathetic activation potential is then exhausted, the system tips and a strong parasympathetic activation ensues. The final

result is again the same: strong activation of the holistic operator without respective afferences from the sensory system, with activation of the sympathetic and parasympathetic system at the same time, and, simultaneously, the respective deeper structure in the thalamus. The main brain areas active in this process are the amygdala and the hippocampus. The amygdala is a collection of subcortical nuclei whose neurobiological task is mainly the rapid analysis of sensory stimulation according to their affective meaning. It plays an important role in emotional learning and probably has also laterally differential tasks: with the left amygdala associated rather with positive, and the right amygdala associated with aversive emotions (Davidson et al. 2000a; Davidson and Irwin 1999; Giordano and Engebretson 2006).³¹ It then generates sequences of activities and affects at the same time which are not necessarily always analyzed or analyzable. Activity of the amygdala can be blocked through prefrontal processes, for instance, through voluntary focused attention, and it has been found that meditation training decreases the grey matter in the right amygdala (Hölzel et al. 2009).

The amygdala seems to have an activating influence on the holistic operator. The hippocampus is necessary for explicit memory. It becomes activated whenever we want to memorize something or when we compare what we see with our experience. The hippocampus generates long oscillating states that are obviously central for provoking the physiological changes necessary to engender durable memory traces. An activation of the hippocampus will, in collaboration with elements of attention regulation, inhibit explicit sensory afferences for the causal operator. We know this situation from our own experience: Whenever we try to memorize something, let's say words in a different language, a new telephone or pin number, then we repeat what we want to memorize for a while. This captivates all our attention and decouples the attention from the outside world. We cannot have clear and reliable sensory perceptions during that time and our complete cognitive capacity is tied up through this attention regulation on the content which we want to memorize. If we are distracted then it may happen that what we are trying to memorize slips from memory and we need to start again. As a rule, during those memorizing tasks we direct our full attention towards one thing. All other stimuli and targets are neglected. In the same sense, during a spiritual exercise and through activation of prefrontal areas, attention is fixated. This activates the hippocampus which again leads to inhibition of sensory afferences and an inhibition of the activity of the causal operator.

In this way we can affect a reciprocal inhibition of the causal and an activation of the holistic operator. At the same time de-afferentiation of all sensory channels occurs. This engenders a state of activity which is characterized by long oscillations between higher and deeper areas in the brain which, however, is not geared towards processing of external stimuli and which keeps the neuronal system in a meta-stable state.

³¹ Interestingly, men have larger amygdala in general than women, but especially the right amygdala is larger in men, while the left is larger in women. This may explain the male bias to react quickly and automatically to perceived threats and danger. This may also explain why women have a rather more positive attitude towards "soft" issues, such as spirituality or ecology. See Cahill 2006.

Since the left, i.e. the language dominant hemisphere and thereby the causal operator is also necessary for a distinction between self and other, this state will also lead to a dissolution of ego boundaries or to a subjective experience of boundlessness. This is a frequently reported phenomenological element of spiritual experience. Through the activation of the holistic operator we can have the experience of wholeness, while the deactivation of the causal operator can lead to an experience of boundlessness and a breakdown of ego boundaries. At the same time the deeper brain areas are active to generate and govern affect. If the hippocampus and the amygdale are also activated then we can expect deeper affects.

The neurotheological theory assumes that the typical form of affect is dependent on the parts of the hippocampus activated. If certain areas of the hippocampus are activated then emotions are ecstatically colored and will be accompanied by the affects of love, unification, and devotion typical of Christian mysticism. Other hippocampal areas are more neutral regarding affect, which could produce the experience of unity more typical of Eastern meditation experiences. It would be common to diverse experiences of different traditions, however, that they are an inner experience of unity with a transcendental reality, and with a dissolution of boundaries typical of a separate ego combined with a temporary suspension of our self concept.

This is a sketch of the theoretical model developed by neurotheology. It makes plausible mainly the spiritual experience of unity. This is of course not an everyday occurrence for a spiritual practitioner who meditates regularly. It is more likely that such experiences are peak points that may happen infrequently, be experienced as a gift, grace or as a present, and also provide the motivation and energy for further spiritual practice. At the same time, continuous spiritual practice leads to what is called integration of such experiences. This means that our everyday life and how we structure it is geared towards a unification between experience and behavior. Ideally this would lead to a situation where the spiritual landscape, which initially might be likened to a walk through deep valleys and high peaks, becomes ever more a path through a more regular landscape in which those initially drastic differences between everyday experience and spiritual experience are dissolved. This can happen because daily and continuous practice leads to the integration of the exceptional into the normal and to the sanctification of the normal in which the fullness is present in every moment.³²

The results of meditation research have produced some knowledge that spiritual practice, irrespective of background, leads to specific changes in the brain. While most results have focused on meditation practice, the model of Newberg and D'Aquili has specifically provided a neurobiological understanding of the spiritual experience of unification. The latter is mostly a plausible neurobiological hypothesis that needs more empirical support in many areas. As far as I am aware, it has never been possible to really document an enlightenment or unification experience with any imaging procedure. The model shows, however, that our current knowledge can be ordered

³²As aptly expressed by the title of the wonderful book *The Ever-Present Origin* by Gebser (1985), who would call states of fully integrated enlightenment experiences "integral consciousness". This is the original source of the term, together with Vivekananda's usage.; See MacPhail 2013.

in a way that a biological understanding of the phenomenological processes of spiritual experience seems possible.

A slightly different, but in many points similar model is offered by Austin (1998, 2014). Instead of speaking of operators, Austin refers to the two very well documented different attention systems. One system, called the *dorsal system*, is associated with *voluntary, focused* attention. The major modules are the frontal eye field and the intraparietal sulcus on the cortex. It is bilaterally represented and overlaps the egocentric processing stream of the midline structures, and it follows intentional shifts. It is, therefore, linguistically associated with ego representations. This is the system that becomes operative whenever we consciously attend to something. Another system is the *ventral system*, which is more automatically oriented towards stimuli that catch our attention in the distant. Biologically speaking, it is an alerting system that alerts us to distant actions that might be necessary to pay attention to. It is unilaterally represented on the right hemisphere, and the major modules are the right temporo-parietal junction and the right inferior frontal cortex. Although specifically addressing attentional capacities only, this antagonistic pair of systems has some similarity with that postulated by the neurotheological model. Here also we have two systems: one more strongly connected to the narrative, verbal, top-down and explicit way of operation and one more strongly associated with an automatic, stimulus-driven, bottom-up, pattern detecting mode.³³ The point Austin is making – especially geared towards the Zen style of meditation and the experiences reported in this tradition – is that if the dorsal system is engaged very strongly through repetitive, voluntary action, such as in attention focused meditation, its capacities become consumed. If then, suddenly, an outside stimulus – a speck of light, a sound from a bell or a bird – suddenly enters the field of an otherwise completely quiet consciousness the ventral systems becomes suddenly and strongly activated. And out of this double activation arises the experience that is called unitive or enlightenment experience.

Seen together, these findings produce the result that meditation is a genuine state that can be distinguished from simple relaxation. Stated differently: The phenomenologically obvious difference between meditative practice compared with relaxation can be supported by objective findings of brain research. It is also possible to develop a consistent neurobiological theory of the spiritual experience of unity as has been proposed by neurotheology which is compatible with the findings of brain research in general and those from meditation research in particular. Whether this will be, in the end, really a true theoretical description is at this point not central as it is mainly important to show that such an approach is rational and can be combined with what we know of the brain at this time.

It is now time to focus on the phenomenological side and the psychology of meditation.

³³These systems have often been equated with the executive control system and the alerting system in the terminology proposed by Posner; See Lutz et al. 2008b; Tang and Posner 2009.

5.3 Psychology of Meditation and of Spiritual Practice

5.3.1 *Phases*

5.3.1.1 Outlook

Subjectively and phenomenologically speaking meditation is a difficult, even impossible, exercise for the beginner. To follow our mental and inner activities constantly with a fine type of mindful attention without being distracted by other mental processes seems to be next to impossible. Our attempt to focus our attention for more than 7 s on one and the same thing without distraction seems not to be part and parcel of our psychological repertoire, as is taught by psychology of attention (Smallwood and Schooler 2006; Smallwood et al. 2011; Cowan 1995). Anyone who has tried the short Zen exercise described previously will see this for him or herself. Initially it is next to impossible to follow our breath with full attention in such a way that we count every breath only once, don't do anything else mentally while doing this, and still manage to follow the breath until ten before starting again.

The initial stage is a time of training our attention. Trained attention is the precondition for any spiritual exercise, just as a certain type of endurance and muscular strength is necessary if we, for example, conduct long biking trips over hilly terrain. One who doesn't have the necessary capacity and endurance will have to train, for instance by making short trips regularly, perhaps with a couple of manageable slopes and then gradually increasing distance and time. One who does not do that but tries to cross the Black Forest, for example, without training will only be frustrated and fatigued, but one who is ready and prepared to do a couple of weeks of training will have an experience of joy with the bodily exercise required for a climb of several hundred meters in steep terrain. However, it is necessary to train regularly in order to achieve this. It is similar with a beginner in meditation. Regular practice in small slices of what seems to be impossible initially will increase the inner capacity to become attentive and concentrated.

It is also necessary that the body is trained to get used to holding the respective postures over a prolonged period of time without experiencing tension or pain. Meditation is possible in any posture, but experience shows that free and upright sitting without back support, on a chair or on a cushion, helps the attentive and collected state. If one wants to meditate in the cross legged position on a cushion, as is a useful practice from Eastern meditation techniques, then the tendons and ligaments have to get used to this atypical type of strain. All meditation techniques know this initial phase, often associated with resistance, in which the inner discipline of regularity of practice has to be achieved. The Christian spiritual tradition talks of a way of purification in which the mind needs to be prepared first. Without the theological connotations used in the mystical tradition, we can pragmatically understand that it is important to prepare body and mind for the exercise.

Beginners, especially, profit when they combine meditation exercises with physical relaxation exercises such as stretching or simple yoga exercises which help

focus the attention on breathing and the body while at the same time preparing the body for meditation.³⁴ In order to focus attention different traditions use different techniques: we can simply pay attention to our breathing or we can count the breath from one to ten. Thereby we can either focus on the out-breath, the in-breath, or both. When we have reached ten, we start again. When we digress, we do the same. It is natural for thoughts to come in between. This should not give rise to deep analysis, but to simply refocusing using our breath. This is the basic technique of many meditation traditions. Other techniques include focusing on the bodily sensations experienced and paying attention, for instance, to the temperature differences or the tickling in the nose we experience when breathing. When breathing in we can sense the coolness of the inhaled air, and while breathing out we can notice the extra warmth.

Mindfulness meditation teaches us to pay attention to all inner processes, and we practice that by mindfully following the in- and out-breaths, and all the feelings and thoughts that arise. Note, however, that also in mindfulness practice the training of attentional capacities as an initial step is mandatory.

It is important in all these exercises that we establish a regular time for our practice. This time should be reserved in our daily schedule and should be regularly followed. It can be short initially, 5–10 min for example, and after a certain time should be extended towards 20 or 30 min. If this is observed over a 30 day period initially, a habituation process starts after which it becomes somehow normal and natural to practice. It is a matter of experience that this time can be integrated even into a busy daily schedule after some practice and with some planning and discipline. The program of mindfulness based stress reduction (MBSR) mentioned above assumes that participants practice over 8 weeks, at least 20 min a day, preferably two 20 min sessions per day, in order to have enduring beneficial effects. Our data show that this is actually carried out by about 80 % of course participants (Majumdar et al. 2002; Walach et al. 2007). We may take one day off in this exercise of self discipline, as in all other activities. Otherwise it is beneficial to practice regularly over a certain amount of time. The eight week time span of the MBSR program is sufficient to establish a stable habit if one wants to carry on with meditation after the course. Initially, the direct effects aren't obvious. However, once we have overcome the initial resistances we quickly experience the beneficial changes that occur with regular practice. A certain habitual relaxation of the body and mind happens all by itself. Beneficial states of deeper calmness and relaxation also occur.

Depending on the intensity of the practice, and perhaps also on personal ability, sooner or later one will have the experience of deep calm and silence. The continuous talk in the head stops, at least for a while. We may not even normally notice this continuous chatter but during the initial period of meditation it becomes particularly perceptible and quite loud. After a while it may even be silenced, at least for a while. These inner moments of stillness can then engender new ideas and insights.

³⁴This combination of physical exercise and mediation technique is probably at the root of the success of Kabat-Zinn's (2003) structured mindfulness based stress reduction program, mentioned above, in which those elements are combined.

Subjectively and phenomenologically speaking, we experience this as a kind of inner distancing from our everyday activities. The grip of whatever was so unavoidable and merciless in our reality becomes looser. At least for short moments we experience that we can live without thinking constantly about our work or what bothers us: a very nice state. We discover that we don't have to permanently think about whether we are still attractive to our partner, whether we will find the man, woman or job of our dreams, or whatever our major life concern is. In short, the grip of reality and of our desires becomes softer, and in those moments of inner peace our cognitive apparatus is silenced because the frenetic activity of our thoughts and fantasies has been calmed. In those moments we can have a very deep experience of freedom and joy. Put differently: Through this exercise we can experience that we ourselves and our inner acts are not identical. The experiences of everyday life sometimes seem unavoidable to us: We need to do this or that, we have to buy this or that, we need to finish this work or else there will be a big disaster, this pain is so great that it will never stop, and so forth. Against this apparent unavoidability and compulsivity of life experiences we can, in meditation, experience moments of inner peace and freedom that show that this is in fact not the case. Pain, physical or psychological, sometimes stops, at least briefly. Sometimes it changes or shows a different side. The importance of what we think is necessary is diminished. The merciless grip of everyday necessities can even sometimes appear funny. An important basic experience can be discovered: the experience of freedom. This shows how we ourselves are, in a way, originators of our inner world, and therefore also have the possibility of changing it. Important ideas or insights regarding our personal life are suddenly possible. We experience these as happy moments, creative insights or simply moments of creative freedom.

5.3.1.2 Insight

Spiritual traditions have different names for this part of the experience, if they name it at all. In the Christian tradition we speak of the way of enlightenment. This should not be confused with the Buddhist notion of the same name which means something else. Other traditions say that observer consciousness is being built. In the Vedanta tradition and elsewhere, one assumes that this exercise makes conscious a higher aspect of self which is normally unconscious, and that this becomes a more or less continuous activity so that life is evermore aligned with it. In the Zen Buddhist tradition this state is called *Zanmai* or a state of calm. The cognitive accompaniments – ideas, affects, insights and so forth – are not regarded as valuable in that tradition, as the whole exercise is geared towards achieving the experience of enlightenment or unity.

Through longer practice the capacity to distance ourselves and embark relatively quickly on a deep state of collection and relaxation is generalized. At the same time we also increase the capacity to distance ourselves from the suction of what we think is necessary. Psychologically speaking, this could be called an increased resilience against stress and strain. The ability to recover quickly from stress is only one

side of the coin. If the outer world or circumstances aren't changed, then the stressful events will always be repeated, perhaps even strengthened, and we will yo-yo from stress into relaxation and back. It is, therefore, necessary that the whole way we deal with stress in our everyday world in general changes. Continuing practice of meditation normally does that for us.

Central to such necessary changes is probably a heightened mindfulness in everyday life. This means that we can direct benevolent and non-judgmental attention to everything that happens to us (Brown and Ryan 2003; Sauer et al. 2011c). Mindfulness implies three things: Firstly, the capacity to consciously perceive whatever happens now in this moment in our field of experience. This can be inner processes such as emotions, thoughts and sensations, or outer perceptions. Central to mindfulness is also the capacity to perceive without distortion as much as possible. Our cognitive system has a very strange habit that is normally useful because it saves time and energy: the habit of quickly categorizing and ordering information. This means that very quickly automatic routines of information processing are activated and only if something unexpected happens in our field of perception is our attention mobilized. However, this often leads to us not perceiving accurately, both regarding our inner states and the outer world. We often use labels and schemata for what we experience without doubting their validity. We then say something is "normal", "natural", "cannot be changed", "has always been like that", without asking ourselves whether this is actually true. This is the reason why in the mindfulness and Zen tradition the phrase "the beginners mind" is often used (Suzuki 1970). This means that meditation teaches us the fresh, young, unspoiled view of someone who sees something for the very first time. This is the view of the child, who experiences and perceives the world as new. The New Testament also uses an analogous expression: "unless you become like a child you cannot enter the Kingdom of Heaven",³⁵ referring to the same phenomenon. Only if we learn anew, suspend our categories and perceive situations, people and experiences as completely new, as if for the first time, can we rid ourselves of the prison that our mind and our implicit habits have built around us over the course of time and which stems from the fact that our cognitive habits have become fortified (Wallace and Shapiro 2006).

Mindfulness is a direct result of meditative practice, and at the same time a generalization of the meditative habit into our everyday life, and thus becomes, recursively, a trait that helps further meditative progress. It helps us to question cognitive habits. It also helps us to understand the triggers for stressful situations that disturb our life *before* we fall prey to them. It is interesting to note that in our pilot study in which people in a high pressure job started to learn mindfulness, the first result of their practice was realizing how stressful the situation in which they had to work was. People started to notice the untoward circumstances and the triggers for the situation in which the stress they experienced was produced. This is the beginning of change (Walach et al. 2007).

Meditative practice can thus help us to absorb the habit of quietness and relaxation into everyday life, and thus resist pressure and stress. It also helps us to

³⁵Matthew 18:3.

understand the circumstances that actually produce or sustain the stress in the first place. This then provides us with a handle for change. Relaxation alone is a little like aspirin for a headache: it is an efficient medication against acute pressure and stress. If we want to avoid getting a headache, however, we must use another strategy. If we want to change recurrent circumstances that lead to pressure, difficult behavior, discontent and a lack of empathy, we have to go down to the roots. Mindfulness helps us do that.

We may then become capable of understanding, for the first time, exactly how we are allowing ourselves to be put under pressure by circumstances. We may then perhaps sense how we voluntarily succumb to a pattern of self-exploitation, not only in our professional situation, but also in our private relationships. We may then also notice how we always react by numbing our inner need and necessities, or how we become depressed if someone hurts us instead of fighting for ourselves. Mindful and attentive dealing with our experiences can lead to a consciousness of how our life can be made more beneficial for ourselves and others. A simple but regularly practiced daily meditation can possibly, through constant practice of attention with deep relaxation, give our consciousness the preciseness, sharpness and presence which we need in order to activate our resources whenever necessary and to use our energy sparingly. At the same time it allows us to produce a point of reference in our consciousness, which is known from different cognitive theories as observer consciousness (Teasdale et al. 1995; Williams 1992). This point of reference allows us to understand automatisms, unknown emotional bodily and cognitive ways of reacting, and thereby to break them. Mindfulness in dealing with ourselves also becomes a habitual way of viewing others, the things around us and the whole environment. In the tradition of mindfulness, experience teaches us that through the practice of mindfulness, i.e. meditation, we also receive the capacity to empathize with others and to better understand what motivates and moves them in the present moment. This helps us to react more adequately towards other people's needs and wishes. We may then perhaps sense the need that drives a youth or a child to become naughty or insolent, which previously would have driven us to harsh words. If we can empathize with the situation of such a child we may perhaps find a word, gesture or a simple sign that allows us to reach the person, allowing us to avoid an unfortunate misunderstanding or aggravation of the situation. It may even become possible to also better understand the limitations in others who are close to us, and to whose rejection we are often much more sensitive to than to that of others.

If we can become more mindful in dealings with other people it becomes possible to simply put a moment of silence, attention or quietness between a situation of rejection or harshness, which in other cases would have produced an automatic reaction on our side. Possibly our normal and automatic way of reacting would have been to withdraw. Now it might actually be possible to detect this consciously and out of that new awareness explore different ways of acting. We might then perhaps be able to discuss the behavior of our partner and, if it was inappropriate, state that it was painful for us to experience it. This might open up new ways of interaction and so forth. If our normal automatic response is fighting and loud opposition, we might perhaps learn to simply stop for a moment to sense which

motives and inner ways of experiencing on the part of the other person might have led to the inappropriate action. We might then perhaps discover helplessness as the root cause and decide to not increase this by reacting harshly, and to simply pull back. We can see that a one size fits all solution doesn't exist, because different situations need reactions as different as people are. Mindfulness is not to be confused with a new routine of behavior. On the contrary, it is a habit that allows us to break routines if necessary, and to keep them when it is economical. A mindful musician won't be one who will consciously follow each note as, for instance, the muscles of her fingers relax and contract to play a wonderful passage on the piano. But she might keep a very clear consciousness of the whole tension of her body, the reaction of the audience and the subtle interactions between her playing and the atmosphere in the room. With a talented and perfected musician, mindfulness and higher awareness may appear in the way that she becomes completely one with what she is doing, such that the vibrant fingers, the cascading sequences, the sound in the room and she herself become one.

The result of the practice of meditation over time ideally leads to a generalization of the type of consciousness that is practiced in meditation: more acute awareness and focused attention with, at the same time, wider relaxation and openness to everything that is happening without having to immediately react. A positive, friendly, stable, basic affect won't change into panic, depression, sadness or misery easily. We saw that meditation is always associated with the balancing of deeper brain areas, which are necessary for coordinating affects and our actions and cognitions, for anchoring of experience in our memory, and for motivating our behavior. If we activate certain systems in our body unilaterally and over and above a certain limit, we will always experience stress and some negative affect associated with it which is, at the same time, a signal to change. While mindfully dealing with ourselves we are learning to heed those signals in a timely fashion. Meditation practice itself has also an emotionally balancing effect. Positive affects ranging from pleasant relaxation to deep and peaceful quietness, from joy and bright feelings to ecstatic affects of happiness, as a rule, accompany meditation that is appropriately practiced. Deepened and longer practice will generalize this affective habit and make it natural. This will yield, again as a rule, a positive affect and a positive and trusting expectation of life that cannot be easily shattered by daily stresses and fights. This, then, is an enormously important and valuable psychological resource. How many inappropriate interactions between people, how many problematic behaviors are caused by negative affect which most people today have not learned to constructively regulate (Davidson et al. 2000a, b; Lutz et al. 2008a)? Almost all diseases of dependency, whether alcohol, nicotine, opiates or other substances, are due to labile and inefficient regulation of affect. A host of interpersonal dramas are caused by people who cannot regulate their affect in situations of stress. Mostly it is unregulated affects that hamper our cognitive capacities so that they don't work properly when we are under stress. Our drives get decoupled and become the source of a lot of problems with impulsivity, starting with an unregulated desire to eat or drink, to vandalism with youths or unregulated sexual impulses in adults. If we only think about the misery that is caused by the trading of children and young adults for the

sex market, which is exclusively driven by the need of adults who cannot control their impulses and who cannot regulate their emotions, then we can see how a generalized competency in regulating affects on the whole would be beneficial to our whole society. If we are not swamped by feelings of inner emptiness, worthlessness or powerlessness with all their affective consequences, then we won't be flooded by uncontrollable impulses that force us to seek satisfaction of drives in ways that are harmful to our own dignity, that of other people, or harmful to our health.

Another aspect is improved cognitive capacity. Meditation is a practice that helps us improve our attention regulation. As a result, practice will lead to our being able to concentrate for a longer time on one task, and to be more present with our attention than is normally the case (Schwartz 1999; Slagter et al. 2007; Tang et al. 2007). This has a series of positive consequences: When our attention is more present it is easier for us to take in important facts. Our memory is activated more effectively. We saw, when discussing neurotheology, that the authors assume that the hippocampus becomes more active. This is the structure which is important for memory and for the translation of experiences into memory. It is indeed the experience of a lot of people who meditate regularly that their memory improves. This is mirrored by findings that hippocampal grey matter is increased in meditators (Hölzel et al. 2007a) and that cognitive capacity, such as memory, does not decline with age in Zen-meditators (Pagnoni and Cekic 2007). By avoiding continuous distractions and with the capacity to become one with the required task at hand, our capacity to attend and our memory is maximized.

It seems to me that the integration of sensory and cognitive data, facilitated by well focused attention, is important. This reduces the "multi-tasking" which is so popular today, and cognitive processes are more focused, and thus more efficient. Sometimes it might be necessary to do many things at the same time, to think about and cognitively deal with them. We have already dealt with this when we talked about concentrative versus expansive meditation at the beginning of the chapter. If we follow the insights of the psychology of memory then it is important that we process as many elements of cognitive content *of one stimulus or task* as possible together; for instance, auditory, visual, tactile, olfactory and cognitive; and that we embed those contents deeply within the already existing network of knowledge content. But this will only be possible through good focusing. However: If in a conversation, for instance, we only listen with one ear and at the same time think about other things such as a negotiation, appointment or what we have to finish before we reach that appointment, then we won't deal with the information from the conversation appropriately, nor will we prepare our negotiation appointment properly. Good cognitive competency, however, will enable us to follow the conversation with our full attention, to draw the necessary conclusions and consequences, and afterwards to prepare our negotiation on full steam. Mindfulness in dealing with ourselves and our conversation partners will help us to avoid wasting time. This makes conversations and negotiations much more effective and we gain time which we didn't previously expect to have. Instead of wasting our capacities in parallel activities and reducing efficiency of whatever we do, spiritual practice and meditation teaches us to become functionally more deeply involved through concentration and collecting

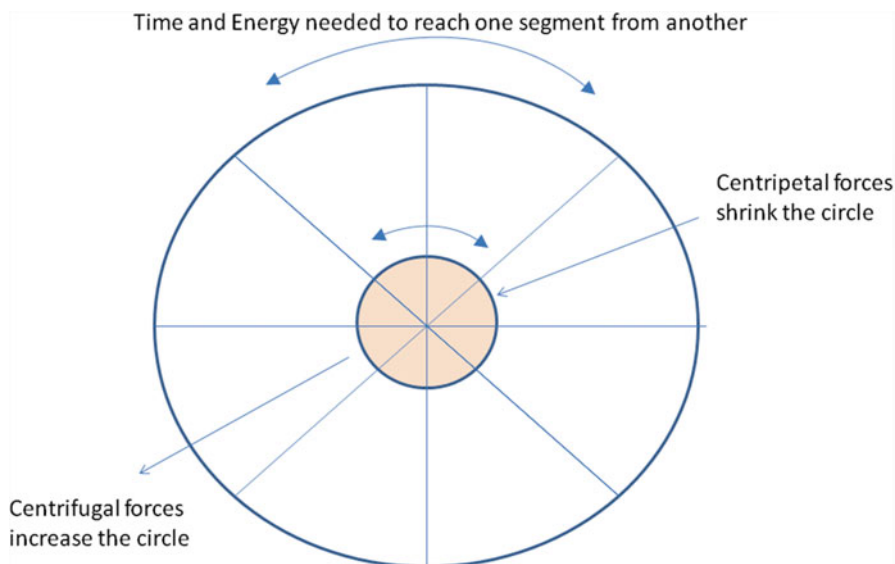


Fig. 5.2 Centripetal forces shrink, centrifugal forces increase the circle. The time and energy we need to go from segment to segment changes accordingly

our thoughts, to do things much more efficiently, to discern the important from the unimportant more quickly, and how not to waste time with the unnecessary.

We can use an image to illustrate this little paradoxical secret of how intensifying concentration works: Imagine a circle that is divided regularly into segments, similar to a spider's web. The further you move from the centre to the periphery, the longer and more tedious it is to walk from one segment to the other if you have to go through the whole circle. If you imagine that centrifugal forces increase the circle, then the task becomes more difficult the larger the circle becomes with these centrifugal forces. However if you imagine that the circle shrinks through centripetal forces, then we reach from one segment to the next more quickly. This is depicted in Fig. 5.2.

This is, of course, only an analogy, but it makes clear that the fear that we would lose something and become inefficient if we concentrate too much is without foundation, and that very likely the opposite is the case.

To achieve this increase in efficiency in getting our everyday tasks and chores done and to increase cognitive activity, we need to also consider the following: In our Western life and culture which places so much emphasis on rationality, rational and logical analysis – and this is good, at least in principle and when it is not overdone – neglects the complementary system of our cognitive competency to see things holistically and to intuitively analyze situations. We saw when discussing neurotheology above that the holistic operator is activated through spiritual practice. This also makes it understandable that this widely distributed implicit and conscious network can also be used increasingly to solve our everyday problems. I myself, for instance, have begun to increasingly listen to my intuition and not my

rational mind only or the results of rational analysis if I am in doubt. Following the terminology of neurotheology, when in doubt I focus on the holistic analysis over and above the sequential causal one. In most cases I find that this was the right decision. This is what we normally call “gut feeling”. I find it improves with meditation. That does not mean that I cannot think clearly or rationally. In everyday situations I need to spend a lot of time with rational sequential analysis, but there are many situations where this type of analysis is too time-consuming, is not clear, or where there isn’t anything to analyze. Here it is necessary to make rapid decisions and only an efficient and well-trained intuition will help you. This way of functioning is supported by spiritual practice. Very often we find that in situations that require a lot of time to be analyzed, we reach our goal of finding the appropriate situation and filtering this information much more quickly using targeted intuitive analysis. Of course, the background information provided by our general life experience also plays an important part, since it supports intuitive holistic analysis. Only those who also have some factual experience in the field in question can use their intuition appropriately. But independent of that background information, the capacity to actually use intuitive types of information is important, and this is trained by spiritual practice. In my own experience, this saves a lot of time and avoids a lot of dead-ends and detours.

All these changes and life improvements are, as a rule, a result of deep and regular spiritual practice. Let us remind ourselves of what Roger Bacon said in 1267: “Whoever has practiced diligently in those experiences (spiritual practice), will be able to gain, for himself and for others, more certainty, not only about the spiritual realities but also about all other human sciences...we need a science, which can pass as a science of experience in the broadest sense.”

5.3.1.3 Deep Sight

One who practices some spiritual practice regularly, be it meditation in a Buddhist context, contemplation in a Christian tradition, or another spiritual practice, will experience moments of special deepening in meditation sooner or later. The moments of deepened quietness, stillness and peace, of freedom and happiness, broaden into a wide expanse. It is as if suddenly a wall that has been there previously is taken away. We know the effect from the theatre or some modern types of glass where a curtain or glass can suddenly become transparent when lit or treated with an electric current. We can see, without obstacle, what happens behind the veil. We then ask ourselves why we don’t see that all the time and since we don’t understand the precise technical idea behind it we cannot really answer the question but only admire the effect. This is similar to what happens with the deeper experience in meditation that has been circumscribed as spiritual experience in the initial chapters. Suddenly we can see, feel, hear and experience an area of reality that has always been and still is there, and which nevertheless can be experienced in its true depth only now. We then feel as if a door opened up or a wall was broken down, as if we were walking through a wall of paper and have delved into a completely different dimension.

The classic texts liken this experience to a moon that is reflected in a lake, fragmented into many moons and specks of light as long as the wind breaks the waves on the water. However when the water becomes completely still it is like a mirror in which the moon is reflected as a whole (Franck 1978; Bobrow 2010; Miura and Fuller Sasaki 1966). This experience, which is called Kensho or Satori originally, meaning “seeing one’s true being” in the Buddhist tradition, often translated as “enlightenment”, seems to be also an element of and described in other spiritual traditions. It is unclear whether it is indeed the same type of experience or whether experiences are so determined by cultural and linguistic elements that it is inappropriate to compare an Eastern Kensho experience with a Western Christian experience of becoming one with Divinity. There are quite a few serious experts and researchers in the area that believe that these experiences are completely different because we cannot get rid of the cultural framing that is inherent to our whole neuronal system. On the other hand, it is interesting to see that the phenomenological descriptions of these experiences that have been passed down through the ages and cultures are so similar that it might be appropriate to take a moderately uniform stance, as I do here: to assume that this experience is identical in its core and comparable, but that when framed in communication and translation cultural elements take place and produce different types of interpretations (Fontana 2003; Forman 1998).³⁶ One basic element of this experience is the transcending of categories. This means that the experience itself does not happen as something that is limited to linguistic categories. Although there is some “knowledge” or “insight” obtained, these are not experiences in categorical linguistic type in the sense of a propositional sentence structure.

Let us use an analogy to make this clear. It is important to keep in mind that it is an analogy: In the formalism of quantum mechanics there is a so-called superposition. This superposition contains virtually all kinds of possibilities that a probability wave can take. Once it is actually measured we see which of those possibilities have actualized – it will be only one of them. This happens on measurement, at which point we then speak of a collapse of the wave function. The many possibilities are condensed or selected into one concrete one that has a precise mathematical value, can be measured, communicated and also used, technically speaking (Gillespie 1970). This is comparable to our normal propositional structure of knowledge in which we have comparatively clear sentences with one definitive meaning. The state which I mean by the non-propositional structure would be experienced in a deeper experience of Enlightenment or unity. It is analogous to a superposition state of a wave in which all possibilities are contained. Currently there are some who speculate that our brain is less a propositional sequential

³⁶Authentic Zen-enlightenment experiences are reported by Kapleau (1969) in his book. *The Three Pillars of Zen: Teaching, Practice, Enlightenment*. Quite a few of the experiences reported were from Westerners and are not distinguishable by their narratives. Also, in a new qualitative study, Gisela Full interviewed Westerners who have had a deep awakening experience. Some of them had not even heard of the concept before they had the experience, and yet they are, phenomenologically speaking remarkably similar (Data are being prepared for publication).

computer, but more like a quantum computer that works in this way, using certain types of superposition states, namely entanglement states. Such a quantum computer has been developed theoretically and as far as I know the single elements are actually working in the experimental laboratory. The question of whether our brain contains modes of operation that are similar to a quantum computer is extremely interesting and hotly debated (Bennett and DiVincenzo 2000; Deutsch 1985; Hagan et al. 2002; Parigi et al. 2007; Tóth and Lent 2001; Hameroff and Penrose 1996; Penrose 1994). At any rate, this discussion shows that there may be states of knowledge and insight that are not categorically and propositionally mediated, but are nevertheless real (Atmanspacher and Fach 2005).

The phenomenological description of these experiences across cultures and ages suggest that there are some similarities and constants and that there are indeed experiences which are important for insight. This is also why we frequently hear the notion of “enlightenment”. Thus there may be some constants in this experience and a lot of contingent accessories.

Here are a few constants which have already been put together by William James (James 1985; Fontana 2003):

The Experience of Unity

A very superficial analysis of our world leads us to the intellectual insight that everything is dependent on everything else. Moreover, the separation of single elements out of that holistic context is a very artificial, and actually inappropriate, operation. We depend in our existence always and at every time on everything else. However, in contrast to this philosophical insight which you can gain after only a few weeks of intensive study of philosophical and spiritual scientific literature, the experience of unity is something deeper and qualitatively different. It not only contains those emotional and motivational components of which I have spoken in the initial definition of experience. It also deepens the insight in a way that becomes a signpost for our actions, and it directs our perception, the way we think, how we plan and what we intend. Thus it is more deeply rooted. This experience of unity with others – humans, animals, nature, the world at large – can reach so far, at least for a certain amount of time, that we experience *their* pain, *their* joys, *their* thoughts as ours, and maybe even for a moment, we “carry all the pain of the world” as the German poet Heinrich Heine put it somewhat ironically in his poem “The Miserable Atlas”. When the poet Rainer Maria Rilke once said when invited to dinner for a roast of venison “I can taste the pain of the forest” it was probably not paltry small talk but an authentic experience of oneness. This we can assume if we take all his other poems as indicators that Rilke probably has had a special gift, perhaps even a destiny, to be gifted with deep experiences of that kind. In the same sense we can understand the Jewish Christian commandment of love that means, in direct translation: “Love your neighbor as yourself”, because he is “like” you. The love here is not to be understood as emotional babble but consequent behavior that is due to respect, acceptance and unconditional support. This does not follow from sympathy,

but from the experience of oneness. Because there is oneness in the deepest sense, this is the background and the reason to have such a commandment as a moral duty in the first place. From our own inability to live in such a state authentically with others we can naturally see how far our own experience of oneness has to be deepened. This is the reason why the Christian tradition has prescribed the practical habit that normally grows out of a deepened experience as a moral duty and thus a measure to actually attain such a spiritual experience, even though Christian tradition itself is still lagging back behind its own ideal. For our own capacity to love in this completely unsentimental sense will be the measure of our own experience if it is to have any practical relevance at all.

Nevertheless, the experience of basic unity or oneness is, in my view, also the precondition within the Christian tradition to understand this commandment and to actually commit to it in one's everyday life. In the Buddhist tradition there is something analogous: Whoever has the right insight will also develop the right compassion, for compassion arises out of the deep insight that all beings are one. There is of course also the opposite path in all spiritual traditions, that of asceticism or devotional practice. This works by practicing the habit which has been found to be important even though we cannot always authentically and from our own insight understand why we have to practice it. The practice then facilitates the experience. Possibly both paths complement each other, namely the practicing of a habit even though it is not always according to one's current mood and even though we cannot always act out of insight and understanding, and on the other hand the experience itself whose goal would be the habit out of which such action would naturally flow.

At the same time we can also see that the realization of this insight into our true being, or enlightenment, is not just an all or nothing process, but also contains grades, phases, and steps of deepening. Our first insight into the basic nature, an initial experience of breakthrough, can actually be had after quite a short period of practice. This then has to be taken care of, guarded, and heeded.

The Zen tradition has, as an iconography, the image of ten ox-herding pictures (Enomiya-Lassalle 1990). Initially there is the seeking of the ox, an image representing true nature or the experience of oneness. At first one can see only its footprints, and then a glimpse only briefly in the forest, but pretty quickly it can be seen. Then we have to catch the ox and tame it, which is an image for the deepening of the experience, letting it grow out into everyday experience. This is the content of the four following images. Finally the experience has to vanish into the background of a completely integrated life.

The Experience of the True Fundamental Nature

In a certain Buddhist tradition, the Zen tradition, this experience is called "Experience of One's True Nature" or "The Insight into one's own Buddha nature". In comparison to the older Buddhist traditions in which the experience is one of the insubstantiality of the Ego, this is a positive type of reference. I assume that there is still also a lot of scholarly debate around the question of whether those two interpretations

actually refer to the same experience. But perhaps it is interesting to note at this point that the negative formulation that the experience is the insubstantiality of the Ego is an insight into the insubstantiality of an Ego as separated from the world, and thus the experience has a positive side, namely the insight into the deeper being that in later Buddhist tradition has been called Buddha Nature.

The emphasis is on a way of being that does not place our Ego as a substantial entity in the midst of our concerns and that realizes the connectedness with everything else. There is a common misunderstanding, mostly with authors from the Western tradition, who think that insight or Kensho experience is a loss of Ego. There may even be such an experience that transcends even the Kensho experience as an experience of spiritual perfection or complete no-Self.³⁷ This is well documented in traditional and contemporary literature. Even the key text of the Christian tradition mentions this. For instance, in the hymn at the beginning of the letter to the Philippians that denotes the theological position of Christ, we can read: “although He (Jesus Christ) existed in the form of God, did not regard equality with God a thing to be grasped, but emptied Himself, taking the form of a bond-servant”.³⁸ The key words here are “emptied himself”. The Greek original uses the words “ekenosen heautou”. Ekenosen is the perfect form of a verb which means “to empty something out”. We know this word from the notion of “Cenotaph”, which means an empty coffin that is only used for ritual purposes. “Heautou” is a reflexive pronoun in the genitive and means “of himself”. The common translation thus is quite correct. But we understand the meaning better if we approach it from its literal meaning. Then it means “he emptied himself of himself” or “he emptied himself of his self”, “he emptied his self”. We see: The special place of Christ who is praised in this hymn consists of his radical emptying out of himself. It might be worthwhile to leave further speculations to theologians at this point.

I hope this short detour has shown that with some knowledge in textual and content issues it is actually not difficult to draw parallels between the Buddhist basic experience of emptiness of self and the Christian tradition if one seeks appropriately (which is, by the way, also a basic Christian teaching). I assume that this radical form of emptying oneself of one’s self, which has been known as the most perfect realization of the experience of oneness and has been reported again and again, is perhaps a very deep and potentially also a rare exceptional experience found at the end of a long continuum of deepening of this experience. To describe this continuum or types of this experience after the initial experience of oneness is neither my intention nor within my competence. Anyhow, it is also sufficient for the basic argumentation of this book to stop with it, and it is important to simply know that beyond this initial experience of oneness there are a lot of differentiations and types.

It is important for our understanding to know that this experience is only the beginning. Afterwards the spiritual path leads towards some deepening and more

³⁷ See *The Experience of No-Self: A Contemplative Journey* (Roberts 1984). Compare also the data in *Meditation-induced changes in perception* (Full et al. 2013), which indicate that such experiences are indeed factual, although rare.

³⁸ Phil 2:5–7.

authentic expression in life. In the life of the ox-herding pictures, seeing and capturing the ox alone is not sufficient. The ox also has to be tamed until it can be used as a riding animal and even until it can be let go and become superfluous.

Texts in the tradition of the Vedanta often use the image of a Higher Self, which is a kind of deep structure of the Ego. In the spiritual experience it will then be recognized and will take over as a kind of guide. In the Christian tradition we sometimes hear that the Christ nature or the inner Divine image can be seen. The mystical texts have a lot of images and mostly speak in terms of unification in the sense of a loving unification of the soul with God in which the Ego dies. Meister Eckhart uses a term that is difficult to translate: “Entwerden”, which is literally translated “to de-become”, or the letting go of all acts in relation to the Ego. If one succeeds in that then God can be born in the soul. According to Eckhart, the son of God will be born at the fount of the soul. Current academic interpretations of Eckhart assume that this notion uses terms that come from the Neo-platonic tradition, which became known in the times after Constantinople had been sacked by the Crusaders and new texts became known in the West (Flasch 1986; von Freiberg 1983; Sturlese 1984). This is probably correct regarding the notion and language. However I think it is still necessary to go deeper and look at Eckhart’s overall intention, not only at his philosophical and theological texts. From this intention we can see that he was interested in making known to his audience, mainly nuns in the Southern German and Alsatian Dominican nunneries and his fellow Dominican Friars, some taste and the method of mystical experience. In addition, Eckhart also wanted to give them vessels of current notions for their experience. In the Christian tradition there is of course no other notion for this basic experience of unity than the notion of “God”. This is exactly the reason why Meister Eckhart, in good scholastic tradition, uses the sentence “Esse est deus” “Being is God”. This means that every basic experience of being, in his terminology, becomes an experience of God and vice versa. This also means that the experience of unity with all being becomes an experience of unity with God. The analogue theological image of the Christian theological tradition is the unity between the Son of God, Christ, with God himself and, analogously, the unification of the soul with Christ. The Platonic tradition of late antiquity and the Church Fathers of this time, i.e. authors of the Second to the Sixth Century after Christ, use the Platonic term “Homoiesis Theo”, which means “becoming similar to God” (Merki 1952). Athanasius, for instance, says in his sermon for Christmas: “God the Logos (this is of course Christ himself, following the Gospel of John) became man, such that man can become God” (Athanasius 1973). This is a theological way of talking about the experience of the unity of all being which used the terminology of the time. Meister Eckhart interpreted this experience and earlier theological images anew and coined the notion of the birth of God in the soul. Taken seriously (and not simply literally) this experience indicates a reality that transcends one’s ego. This reality has always been present at the fount of one’s being and is waiting to be realized.

Whether it is in fact admissible to use this Christian notion of “the birth of God in the soul”, or “the unification of the soul with God” which was used by other mystics, in juxtaposition to the Buddhist “experience of the true nature” “the Buddha nature”

or “the non-substantiality of the Ego”, is a matter open to discussion, which we cannot continue here. Perhaps this discussion is also only of academic and not of practical interest. We assume that phenomenologically and factually it is possible to assume a structural similarity of these experiences. At any rate, this basic experience of one’s true nature has been part of different traditions and is documented in them by various metaphors. The only thing that is really certain is that talking about it is useless, because trying to put the experience of fullness, of multiple truths, of things that are paradoxically related, of the simultaneity of exclusive descriptions into our language, into a linear, prepositional and categorical structure, creates only non-sensical statements.

Experience of Boundless Joy, Freedom and Goodness

Affective concomitants of such experiences seem to be a constant across traditions. Mostly this experience is accompanied by feelings of great, even ecstatic, joy. In the Christian mystical literature we often find formulations saying that in this experience heaven can be experienced on earth, or that it is a presentiment of heavenly joy. Quite frequently in this experience of unity we also find connotations of everything being good. This is of course an extremely difficult notion. What of evil, or a murderer who robs another of his life to support his own egotistic motives, or a catastrophe that reduces innocents to orphans or cripples? How can all that be good? The old question of “Theodizee” arises, the question of the justness of an allegedly good God in the face of the pain and misery in the world. This is not the place to offer a solution to this question. I even think that the attempt to offer too quick a solution is a sign of a lack of insight and depth. However, and this is the paradox, it still seems to be an important element of the experience of unity that there is an intuitive knowledge that whatever is, is good as it is, even though in individual cases it is not understandable why a miserable situation has to occur. Nevertheless, pain and misery is taken up in the complexity and wholeness of being. In the Buddhist tradition there are insights citing the impermanence of suffering, and that even the deepest suffering arises from clinging, i.e. the lack of the ability to let go of our own needs. In the Jewish-Christian tradition, the final reality includes everything, even misery, in some way. Even though this is difficult to understand and a mystery, this experience gives us the trust in the basic benevolence of nature. For instance, the experience of the historical Jesus seems to have been that this final reality is facing us in some kind of loving relationship and this is why he talks of it as “Father”. From this experience will grow the certainty that there is some kind of loving contained-ness in this world, even in our historical times. That this experience is not bound to pleasant outer circumstances can be seen in the testimony of Bonhöffer,³⁹ who, shortly before his death in a concentration camp, could say “Taken care of miraculously by good

³⁹ Bonhöffer was a protestant priest and a member of the resistance circle against Hitler. He was imprisoned in the concentration camp Flossenbürg where he was killed. The prayer cited is from his final diary.

forces, we can await trustingly what is to come". In this experience we can also see the freedom and the power in being able to make peace with one's life's circumstances so that they can be used constructively, and sometimes to also work against them if insight commands this. There is a very common misunderstanding that a mystical stance and inner experience leads to political apathy and naive assent to circumstances and therefore is reactionary and politically opportune for the current powers that be. We only have to cast a cursory glance into the lives of leading figures across ages and religions to see that this is a major misunderstanding. The historical Jesus, for instance, was killed as a supposed blasphemer and leader of a political revolt, as were his followers. Practically all outstanding figures of Christian mysticism have had some clash with orthodoxy at some point, from which they were more or less scarred. I don't know of a single example in which true inner experience has led to assent and collaboration with structures of injustice or mechanisms of exploitation. There are also a couple of good examples of how spiritual practice, for instance, of Zen during the Second World War, have been instrumental as skills of fighter pilots and used for political interests, and examples of how individual teachers have misused their status as teacher and guru for profane self interest, from abuse of students for their own sexual needs to material greed. There are also a lot of examples as to how some individuals, although they may have spiritual experiences, are still very egocentric and unsympathetic people who seem to be far away from the freedom and serenity which I have sketched here.

One should not forget, however, that the spiritual path is long, the bars and pubs by the way are inviting, and human nature is quite frail. A noisy group of hikers getting drunk in a pub do not disprove the beauty of nature; likewise sexual abuse among spiritual teachers or priests cannot destroy the ideal of freedom that arises from spiritual experience. These examples show one thing: In spiritual experience we can see in an inkling the fullness and beauty of all nature and all being. Depending on how deep the experience is and how stable or psychologically healthy the person experiencing it is, and depending on how well the experience is linked into a cultural context, it can become more or less fruitful and carry its beneficial effects into everyday life. For instance, if a person who is meditating out of sheer inner need and who is narcissistically frail and needy and suffers from a lack of psychological integration has a breakthrough experience, it can happen very easily that a hungry, needy ego takes this experience and uses it as a patch to hide the holes in its own garment instead of a motor for continuous development (Walach 2008). If such a person is then not committed to a community and also lacks spiritual guidance, then it is quite easy for this experience to become distorted. Jesus used to tell his disciples a story: The Kingdom of Heaven (we now hear, the experience of unity) can be likened to a farmer who sows seed. Some will fall on the path, into the thorns, onto bad and dry soil, on stone, may become eaten by birds or may die due to lack of nourishment. Some will fall on good soil and will grow and become a strong plant bearing so much fruit that whatever has failed to grow becomes outweighed a hundred-fold.

Thus how we nourish the experience affects the ability to realize the possibility of happiness, freedom and goodness that the experience offers in an instant, and

affects how we translate it into our own lives. This is the task of a spiritual path. Part of it is continuous practice and exercise as an important element, but also being connected with and committed to a community of some kind and, certainly at the beginning, good guidance is also necessary.

The ox herding pictures in Zen show this: the ox is found quickly. Achieving the first experience is relatively easy. Then, however, the capturing and taming of the ox, the deepening and nourishing of the experience, follows. This is like a spring found in dry soil: Initially we see it clearly, but then it dries up and withdraws into the depths if we do not dig deeper, capture it and provide a well in which the water can collect and stay and in which sand and dirt can settle. Exercise and practice will help us deepen the initial experiences of happiness, freedom and the goodness of the world. This concerns the insight itself, but also the forming of appropriate habits in our own lives that conform to the insight. I emphasize once more: A lack of perfection has never been able to negate the ideal. On the contrary, this lack of perfection can become the impulse to deepen the realization of the experience and bring it into life.

Experience of Love and Light

Another phenomenological constant of such an experience is the experience of light. Most descriptions I know of contain metaphors or verbal descriptions of light and clarity. Either it is reported that there was some actual perception of light, for example, that it became light, or that light shone from somewhere. The notion of en-lightenment is a verbal expression of that experience. The night becoming light or visual acuity and clarity is often used as a metaphor. In the Old and New Testament such experiences in which some transcendent reality enters the everyday reality is almost always associated with metaphors of light. Either we hear of angels in bright clothes, or light comes from heaven, etc.

This experience is often also accompanied by a feeling of being unconditionally accepted or loved. If we interpret the baptism of Jesus in the Jordan River as such a basic experience of unity in which the historical Jesus had found his own calling, then we find these elements at least partially there. In Mark, Jesus (i.e. Jesus alone, not those around him: It is important to note the subtle detail of language which shows that this little text is a report of an experience) sees the sky open, sees the spirit descend in the shape of a dove and hears a voice which calls him “beloved son”.

It is interesting to see that the experiences of light and love mostly occur together. This reveals an old insight that “loving” and “knowing” are identical. To the best of my knowledge, the Hebrew language uses the same word for both. We have discussed this already and I repeat: Only if we understand someone in his or her depth, when we know someone, then we can also love them, and in the same vein, love will also engender understanding. This allows us to gain a little psychological aid for everyday life from this context: If we lose love, for instance in a close relationship or partnership, then it is important to try and understand. This we can gather by

empathizing with the inner world of the respective partner, by empathizing with his or her background motives as to why they are acting the way they do. As soon as our understanding grows, our love can grow again.

The feeling of being accepted and loved which usually accompanies this spiritual experience can also become a source through which we can love and understand others. It is common psychological knowledge meanwhile that only those who have experienced love in their childhood and past are able to love, and that the lack of love and empathy in childhood or the experience of abuse and violence makes it difficult for people to enter close relationships, to give or receive love. The experience of oneness can, if not atone for the lack of love in the past, offer some replacement, because in this experience all love in the universe seems to be condensed. This may explain a little why in spiritual jobs we often find people who seem to be broken or have deep psychological wounds. Emotional wounds and a lack of care from childhood seem to sensitize one to spiritual experiences, make one open and perhaps even hasten their occurrence. A cynic might say that spiritual experiences are nothing but the attempt of a complex system to reorganize oneself because love has been lacking in early childhood. Perhaps this is the case. I think, however, that there are a couple of hints that this interpretation falls short. It might well be the case that the experience of unconditional love that normally accompanies the experience of unity will compensate for some lack and also sensitize one to the necessity of treating others benevolently and emphatically. People who had bad childhood experiences are not only looking for love but also have fragile personalities. While the experience of unity will help satiate some of the need for love, at least short term, personality and the capacity to form stable relationships cannot be repaired so quickly. This sometimes requires long-term work with professional help from a therapist. Depending on the framework conditions of how deep the experience, how fragile the personality, and how well established their social and personal relationships are, a spiritual experience can allow for deep change. It often happens that the initial experiences draw people on to a spiritual path. They then perhaps become members of a spiritual community or become engaged in this area. Since the continuation of the spiritual path is often long winded and stony, and since there is not always good training and guidance, it can easily happen that someone gets stuck half way (Bobrow 2010).

Here also, negative examples should not dismiss the principle. Rather, they might help us understand better. Finally, it is universal love that is sought by all, found by many, made the principle of life by some and realized by very few: “O luce eternal... l’amor che move il sole e l’altre stelle” – “Oh Eternal Light.. the love that drives the sun and the other stars”, as Dante said at the end of his Divine Comedy (Laaths o.J.).

Insight and Knowledge

This leads us to our last and central element of this experience of enlightenment, which is already included in its name. This experience always transports knowledge and insight, the feeling of having understood something, part of the world or,

perhaps the world itself, in its depth. There are few reports of such an experience in which insight, understanding or knowledge is not a part. A classical Christian text is the autobiographical description that Saint Ignatius of Loyola, the founder of the Jesuit Order, dictated to his secretary about his own experience (du Brul 2003). It is dictated in very dry language, but it contains all the elements mentioned above. He speaks there of the love that he suddenly experiences, of light and an instantaneous deep insight into the truths of the world. He also says that the total of his experiences and Enlightenment and everything he had studied in university taken together would not have been as much as that experienced in an instant during this moment of clarity. Other contemporary reports that have been collated by the Western Zen-Master Philipp Kapleau (1969) describe one or another element of knowledge and insight without exception. All of them report some deeper sense of knowledge as a hallmark of this experience. It is as if the knowledge of the basic structure of the world is widened in a deeper, inexplicable sense. Let us use once again the modern metaphor of quantum superposition that I used previously. Then it is as if we not only know the actual realities before us but also a wealth of layers in between. This knowledge may even implicate access to information that we cannot normally have. Phenomenologically speaking, often the threshold between space and time is removed, or one knows things that have happened elsewhere or at other times, or one is telepathically connected to others. All those reports should be viewed as incidences where experiences which happen in an instant are condensed in a temporal now that is more or less extended and where time has stopped flowing. Mystics in the tradition of St Augustine used, again and again, the words “nunc stans”, that is, the everlasting now.

However, unless the experience ends with death, at some point even the deepest experience and most extended now will have to revert to the mode of sequential causal processes that are part of our world. That means normal life will continue with the simple acts and processes, with all the little joys and pains, perhaps made richer by the dimension of depth that have been seen in that intensive moment. Hugh of Balma thought that the experience itself, although not cognitively mediated but accompanied by abstaining of all cognitive activity, will leave a state of larger knowledge behind that he calls “Experiential Knowledge of God”. Other authors, including Hugh, also call this state of insight “sapientia”-“wisdom”. This refers to a type of knowledge that cannot be gained by rational analysis, but by the experiential taste (the Latin “sapere” means tasting).

Discernment of Spirits

We could also say it is a form of intuitive seeing or holistic insight into the world. At any rate, this experience is always accompanied by a deeper form of knowledge that also contains the basic capacity to discriminate between sensible and silly things, concepts and solutions. This is less a capacity to always know what is right or wrong, although interpretations in the spirit of Plato would actually see it that way. I think it is more useful to see this insight as a basic capacity to discriminate

what is helpful from what is not quickly and comparatively reliably in everyday life. Even the deepest experience is not likely to give an insight in to how the world will be in, let's say, twenty years' time, or which problems we will then have to face. However, it will give us the basic capacity to understand what true connectedness is, to act from it, to seek ever new, good and creative solutions to problems, and to intuitively know when a proposal, strategy or general way of reacting is against such fundamental connectedness. This general capacity to act out of certain fundamental constants such as connectedness or the wish to serve life, in conjunction with maximal openness, will guarantee a cognitive stance that does not overlook important promising solutions when they arise, and also avoids falling into the trap of cheap and ideologically rooted concepts. The tradition of Christian mysticism knows this type of understanding as discernment of spirits. Originally this meant that it would make one capable of discerning inner movements of the soul that were inspired by good angels from those that were inspired by the devil and his spirits. If we are ready to translate that language of the old tradition, then we can see that what was meant by it is similar to what I have sketched above. If we now transpose this capacity out of the narrow circle of Christian ascetics into a wider field of participation in the world at large, then this old notion of discernment of spirits refers exactly to this: the experience of unification will provide us with an inner measure which helps us to orientate ourselves. We can compare it with a general capacity which can be used in many different situations, such as the capacity to learn new languages. This does not mean that we have the ability to speak all languages, but that we are more easily able to learn new languages when we need them. Also we can use the example of being able to read maps: One who has learned how to read topographical maps will always be able to find their way through unknown areas, and will be able to see with a map whether they can dare to descend a mountainous area in bad weather or whether it is better to stay put or take a detour.

There is hardly anything more tempting, more dangerous and also potentially more useful than an insight that seems to come out of great depth. Temptations of all strands have used this phraseology to deceive the masses. The way from charlatan to apparent prophet is extremely short. Hitler also referred to his insights and providence. In the same way Bonhöffer and Alfred Delp⁴⁰ knew instinctively that the Nazis did not get their inspiration from a pure source. Here we see a new facet of the old topic of discernment of spirits. How can we decide ourselves whether an insight or an inner experience really stems from a deeper contact with reality and not merely from our own fantasies and ideas of power? How can we know that what other people say is not just silly talk but may actually have some fundamental reality? How can you, the readers of these pages, know that I am not only motivated by gaining public acclaim and the potential to make money when writing this text, but that I have a genuine motive associated with it which I think is worth making public and which in fact stems from some contact with a deeper reality? How can I know this myself?

⁴⁰ Alfred Delp was a Jesuit priest who was also associated with the resistance circle against Hitler and was killed when found out.

Let's start with you, the reader, and myself, the author. If you have followed my thoughts up till now, not only because someone told you to read the book or you have to write a critique of it and are already furious, then you did that because you have felt some inner resonance, curiosity, sympathy, interest, perhaps even inspiration. This is the first important criteria. But have not also the masses that responded to Goebbels' infamous speech in the Berlin Sportpalast and who shouted a brainless "yes" to his question of whether they wanted a total war also felt inspiration? They probably did. Then resonance, sympathy and inspiration alone are insufficient criteria. Spiritual traditions have very simple criteria to understand whether something is useful or not: Ignatius of Loyola called it "consolation". He used this word to describe those inner movements that are productive and useful. "Consolation" is the translation of the Latin-Spanish words "consolacion – consolatio". This contains the word "sol - sun". When we experience inner brightness, joy and peace, quietness and consolation, then we are on the right track. If uncertainty, doubt and sadness are the consequence, we are normally wrong. At least this is mainly so. Things become more complicated if we progress further. Then it is frequently the case that we think we know exactly which road to take. We think we have found wisdom and sometimes we get stuck in a boring and joyless routine: get up in the morning and meditate or pray, or both. Then do your job, without much joy. Then eat with people whom you find boring. Again, do your job, whose meaning is uncertain, till the end of the day, and in the evening relax in an old unchanged routine. In such a situation it can become necessary to have doubts about our allegedly good and clear life before we are ready for a deepened experience.

In each spiritual tradition there is a clear and actually very simple criterion, which however is often neglected: practical results. Only practical results in our lives count. Nothing else. "By their fruits you shall know them" is the simple teaching provided by the Gospel. Here there is no doubt. What became of Hitler's followers could already be seen while the political scaffold of the Nazis was still intact, and those who were able to see it drew their consequences. Those who shouted in the Sportpalast could have known that the consequence of their shouting was the death of millions and in that sense there is a very clear additional criterion for the truth of inner resonance: the outer world.

In the case of ideas and thoughts history takes over a filter function. Anything that is useless won't survive the mills of history. In that respect I can let my words out into the world and commit them to history. Gadamer renewed the principle of the history of efficacy – *Wirkungsgeschichte* – in the course of his philosophical hermeneutics: whatever shows effect will come up in history ever new. Whatever comes up anew will have some truth to it. In that sense the fact that I take time to write these pages shows that something that wants to be heard wants to find expression, however imperfectly I can do it. Who now wants to know how useful my thoughts are can listen to his or her own resonance, to the feelings that are produced by what was read, whether it was interesting or boring, attractive or not, resonating or not. Whoever is still insecure will have to try and establish whether my life and the fruits I produce are convincing or not. In the social sciences and even in medicine we increasingly see that clarity and truth are rarely obtained from one single

source of data. Very often one needs more than one perspective. By bringing all the perspectives together we get a clearer picture of reality. Similar to trigonometry and geometry, we call this triangulation: Our inner resonance with an idea and the nice feelings produced by a thought is not enough. We also need support from the outside, pragmatic securing of an insight through outer information. If I were not to feel some joy and satisfaction when writing this text, considering the workload it means in addition to my normal work continually trying to steal an hour or two to enter anew into this field and into the text although it doesn't have a lot to do with what I normally have to do, then I would have stopped it long ago. If I then, after some time, had not felt that the text would be useful and contained something worth communicating, I would not have continued with it. If, further, after some critical and benevolent friends had read it, I had not found supporting feedback, I would not have felt that publication is worthwhile. Finally, the proof of the pudding is in the eating: If no one wants to publish then reality has already given a judgment before it even reaches the public. The usefulness of my own enterprise here can be a good example of how discrimination between sense and nonsense, usefulness and uselessness, can be handled in practice.

When I said at the beginning of this section that the fruit of the experience of unity is a certain type of insight and knowledge that can be seen as a generic capacity to discriminate, I did not mean that discrimination is once and for all. Most of the time we have to continue discriminating, and often we have to revise decisions according to how things go. But the generic guidelines, the hallmarks of a good decision and the criteria for finding it, are well supported by history. These criteria are not ideologically given or rooted in doctrine so that one could simply deduce what has to be done, but they develop and have to be found ever new out of the experience of connectedness and the sanctity of life.

That does not mean that the experience does away with all difficult situations once and for all. Of course there will be crises, problems and situations which seem to have no exit or solution. But then there will also be the security and the identification of an exit route when it offers itself.

Openness and Creativity

This leads me to our last element. The experience itself is an experience of radical openness and an experience of widening of the horizon. Thinking habits and styles of perception, even complete patterns of action, can be suspended and, ideally, new ones generated. The experience of opening up in which a lot of old habits, traits and mental content die is mostly an experience of a more or less complete psychological death, out of which new life can grow. Whoever has had this experience knows that there is no such thing as a disturbance in our lives that will not lead to a better life. This experience installs a kind of constitutional curiosity and joy for new things, or what I would call a basic openness. A famous Zen koan goes as follows: "Question: what is the ancient and venerable path of the Buddha? Answer: Only openness. Nothing holy." In psalm 18 we find the sentence "You guide me outside into the

vastness because you love me". This experience of opening up is the basic precondition for creativity and creative insight. Phenomenologically it is as if our own thinking, our own ideas, calm down and become silent to allow larger global thinking into this space. Things will then come into our mind – ideas, solutions – that feel as if they were coming from somewhere else, as if the wind had brought them and deposited them by accident on our windowsill like a flower from a distant garden.

Creativity is, as we know, the capacity to think something completely new, to create, see, or make something that has not been here before. This is not something we can learn or create systematically. Everybody knows the paradox of the command, "why don't you start being creative?" The more you try the less you succeed. Only letting go, radical opening and ignoring our own internal limits will allow this creativity. This leads us to the actual target of this discussion: This is where the basic creativity of thinking and of science also comes into play, and therefore this is the place where spirituality and science meet, even have a very basic similar intention. Good science and true spirituality have several commonalities and are actually on the same footing. They both opt for a radical openness. In science this openness often comes under the heading of "skepsis". This is institutionalized methodological doubting or suspicion of handed-down knowledge. Moreover, if this openness is relinquished due to political or strategic reasons and other values are put before it, science is degraded to dogma. Similarly, spirituality without openness and experiential re-living will have religion degenerate to formalized dogma. It is interesting how remarkably similar science and religion are in this respect. Science, the new religion, becomes scientist dogma if it gives up openness towards new experiences, similar to religion becoming dogmatic when the spiritual experiential core is neglected. The remedy in both cases is the same: experience and openness to new experience.

Only when the scaffold of our knowledge in science becomes the starting point for new discoveries, or the traditional edifice of understanding in religion becomes experiential content that is lived, then both science and religion can fulfill their own functions. This consists, in the case of science, of understanding the laws of nature and of using them. The function of religion is to become the expression of and vessel for spiritual experience and to guarantee the relationship of the concrete historical situation to the whole, which is necessarily transcendent reality. The antithesis, science and religion or science and spirituality, stems from the fact that each area sees the other only as a distorted or crippled form, or a dogmatically crystallized scaffold. There is of course some basis in reality for that, as we have seen. Nevertheless, this is a distortion in principle. In the sense transported here, spirituality and science are two complementary sides of one thing, namely of the human attempt to understand the world. It is complementary in the sense that we have discussed: We cannot both look outside and inside at the same time, but we have to decide, at least for a time, on one or the other. They are both, however necessary for a complete understanding.

There is a frequent self-misunderstanding within science which assumes there is a canon of things we cannot doubt. This then defines science by content and not by method. This is not compatible with a habit of radical openness. History teaches us

that such a definition of science starting from content and not from methodology has never been useful. If we define science so – and I think a lot of people within science and the politics of science do that implicitly – then certain contents are automatically precluded from scientific understanding.⁴¹ This is still a reverberation of the old positivist prohibition of metaphysics that declares certain *contents* (and not certain *methods*) as “unscientific”. Following this viewpoint it is not “scientific” to study spirituality because one thinks that a certain way of thinking about consciousness, mainly the reductive materialistic approach, is the only possible way. Then it wouldn’t be “scientific” to follow topics that are at the fringe of the current mainstream scientific thinking. Such a dogmatic notion of science is similar to the dogmatism of religion that assumes it is heretical by definition when one views the dogma of the virgin birth as not being biological but spiritual, or when one doesn’t think that sex before marriage is automatically sinful. The structure and content of dogma in science, if they come from a content driven definition of science, are no less silly than the dogmas of religion if they come from a misunderstanding of hermeneutical structures as sentences about content. If we look into the history of science we often find that this content driven definition of science was a problem for progress in science, and all the big breakthroughs have only happened because individual people were daring enough to question such content, mostly against the powerful majority of orthodoxy.

Some examples:

We all know the example of the Copernican revolution. Relinquishing the geocentric world-view was not a question of experience or of a better theory, but a question of power and of the content definition of what science was dealing with. Only the daring and stubbornness of some important scientists against the institutions of the church led to progress.

Around 1630, when William Harvey “discovered” blood circulation, the mainstream view, based on Aristotle, was that the heart was a convection warmer and that the blood rose through the warmth in the body, was cooled by the brain, and descended again. Therefore there was no conceptual place in this worldview for a pumping, beating heart. Leading opponents of Harvey, even in a publication as late as 1648, stated that there was no one in Venice who could hear a heartbeat and that no one could even imagine that this was possible (Parisano 1647, p. 107). We laugh about such statements today and don’t recognize that our own viewpoints on what is possible or impossible are no less provincial. Again, in this case, science was equated, not with openness and stringent methodology, but with a belief in an existing corpus of knowledge.

For a long time there was a teaching “*Natura non facit saltus* – nature does not make jumps”, or, to put it differently, the dogma of continuity. Only when Newton, and at the same time, Leibniz, dared to go beyond the limits of this dogma of what science is or isn’t allowed to do, was it possible to introduce the *limes calculus* and from it the integral and differential calculus. This again allowed new developments

⁴¹The modern theory of science reflection shows that this is not a useful notion of science. Good science doesn’t do that. Compare Fischer 1999, 2003, 2007; Laudan 1977.

in science and technology. Only with it was it possible to calculate according to mechanical laws. In physics the dogma of continuity was active until 1900, until Max Planck dared to trust his own measurements and calculations and to postulate that energy doesn't come continuously but in small chunks and bits, the light quanta or photons, thereby starting quantum theory (Gernand and Reedy 1986).

Louis Pasteur had to defend his theory of micro-organisms and germs against the common teaching derived from old physiology postulating new life came from nothing. Initially he was laughed at (Latour 1999).

Although theories are necessary to inform our perception and to guide us towards where we should look initially, they can also be counterproductive if we make them absolute and define science as a whole through the filter of a theory which we accept as true at the moment. In the same sense, we have to fight definitions of science today that define science and what it is to be scientific through the filter of what we currently know which we cannot imagine could be moved, basically changed or expanded. In the same sense, openness is an antithesis to dogmatism for science as well as for spirituality. This is not only a basic virtue but also a result of good practice.

It is only from openness or from the contact with reality beyond our theories and concepts that we access creativity, find a new understanding, and reach new insights. The contact which leading representatives of science have with spiritual teachers shows that those two disciplines can meet where both are looking into the unknown with openness.⁴²

Continuous Deepening

I have previously discussed the elements that occur as part and parcel of deeper spiritual insights or enlightenment experiences. It is important to remember that the experience itself can happen in minutes, hours, and, rarely, in days. At some point the exceptional state will end, and an everyday type of consciousness will take over. Food will be required, clothing will need to be washed, people will call, friends visit, there is a job to attend to, a husband, wife, or child may need attention, a mother requires a visit and other important things have to be attended to. Then the exceptional state is over and has to be integrated into everyday life. If we are lucky then the experience also contains the recipe for this integration, especially if it has happened within a good methodological framework of preparation and regular practice. There is a Zen saying that describes this: "Before the Enlightenment, trees are trees, mountains are mountains and grass is grass. During the Enlightenment trees are not trees, mountains are not mountains, grass is not grass. After the Enlightenment,

⁴²The encounter between Erich Fromm and Fritz Perls and Zen masters is a prominent example of such encounters in the more recent history of psychology. Jack Kornfield, probably the best known mindfulness teacher in the West, inspired Kabat-Zinn to develop his own training, and the Mind and Life Institute nourishes contacts between neuroscientists and Buddhist meditation; another example of such contact. In this precise intersection the creativity of the life process itself can be seen.

trees are trees, mountains are mountains and grass is grass". The exceptional state wants to be taken into our everyday life and only then will it have any purpose, as we have seen above. Only if we succeed in securing whatever we have seen into our everyday reality and our actions will insight and experience have been meaningful. Only if we can live our life, for ourselves and for others, in a better way, will the experience have borne fruit. All spiritual traditions are full of warnings not to get stuck in the experience itself and the search for ever new experiences, but to become effective in life. All spiritual traditions are quite clear in that the experience itself possesses no value in and of itself except that it becomes the motor and the motive for a change in life and action. The New Testament, and with it the whole Christian tradition, puts a lot of emphasis on the result of experience: a loving relationship with ourselves and others. In our culture we very often forget that we cannot produce that style of living out of nothing, but that we can only live authentically if we have the respective experience.

The Buddhist tradition knows the ideal of a *Bodhisattva*. This is a saint that has reached Enlightenment but, out of compassion for all beings, operates in the world, as compassion is an important notion for the Buddhist tradition. Also in Islam and Judaism, "right action" is a central notion. Only a one-sided interpretation of the history of the church combined with feudal structures of power has led to the fact that we identify religion and spirituality in the western context with "correct faith" and profession of faith, and it won't be easy to get rid of this distortion.

Experience must not be a purpose in itself, but the impulse for a change in life. We have a lot of starting points within the spiritual traditions. Some continue the theoretical discussion about subtler, deeper states of consciousness which have to be reached in order to complete liberation. The Vipassana tradition, yoga psychology, and Vedanta know a long series of differentiations of consciousness after the first experience of oneness. I don't want to negate that there are such differentiations, and that it can be quite useful to achieve and strive for them. However, in this context it is sufficient in my view to have a first, generic viewpoint, and I am not even sure whether a lot of the modern authors that talk about those differentiations in the spectrum of consciousness beyond the experience of unification as if they were talking about the color of their robes do that out of their own authentic experience or because they have read about it.

I have previously pointed out a very instructive historical coincidence and I repeat it here. When Thomas Aquinas, after a very busy life as a theologian, university lecturer, author and a very pious life of regular spiritual practice, had a very deep spiritual experience, he decided to stop writing. He was in the midst of the final piece of his theological sum, which was his *Opus Magnum*. Despite the quality and clarity of his writing, he told his secretary, William of Tocco: "What I have written is like straw compared to what I have seen".

In this sense, I am skeptical about a lot of those revelations of subtle states of consciousness. There would be a lot gained if the average citizen would start regular spiritual practice and set time aside for collection, leading to deepened experience.

In consequence, we should be making spiritual experience that is fruitful through practice a prime motive. Although deepened or heightened experience in the sense

of more subtle states of consciousness can be gained, these are not necessarily the actual aim of practice but side effects. The goal should be to transport this consciousness into everyday life, to integrate it with daily actions in all its facets so that living becomes an expression of the experience. This will also affect our little daily rituals such as what and how we eat, our relationships, how we deal with our job and how we behave in conflict situations. We then will see what our experience is worth and what it isn't. The New Testament points this out clearly: How we deal with our friends can be settled easily. That doesn't need deeper experience of reality. However, how we deal with enemies, i.e. with people who actively wish us harm, is the real test of deepened consciousness of unity. Only in dealing with adversaries, with active and malevolent opponents, will an experience of unity become tested. Only those who, even when they are physically or psychologically attacked by an opponent, do not fall out of the realization of common unity have integrated the experience in a way that has become fruitful without restriction. At least, this is how I read the Christian commandment to love your enemy. In this context, the subtlety of the realized consciousness is probably negligible. Only one thing counts here: the integration into life and the radical transposition into practice.

In this sense, we could probably say a few things about the extremely important time after the first experience. One would have to talk about the additional regular practice, the importance of being guided by an experienced teacher, how important it is to be part of a community, about the times of drought and neglect that lie ahead, and the important virtues of faithfulness and endurance that are necessary. This would have to be the content of its own, probably very long, chapter, but would have to be written ideally by a very old and very experienced spiritual teacher who has experienced and seen a lot in himself or in others. That is not my qualification. Apart from that, it is not my intention to write a contemplation-in-practice-book for the progressed. All I want to do here is to point out that I am at the moment condensing between 30 and 40 years of intensive exercise and practice of meditation into a few pages and that this confirmation should not be seen as an indicator that this phase is not so important. I have already pointed out that in total six or seven of the 10 ox herding Zen pictures are dedicated to this process. The ox needs to be tamed, only then can it be ridden. Once we have ridden long enough we can forget him and leave the question of the kind and type of Enlightenment behind us. From here, there is still a long way to go until unity is fully realized and so integrated into action and life that it has become first nature.

All this requires regular practice and could be considered in a lot of detail. In some types of Zen tradition this is where koan training starts, with a goal to condense experience and bring it into practice. However, we want to stop the discussion of the spiritual path, like a first volume of a development novel, at this point where the main figure has grown up and had the experience of love for the first time. We know there will be a lot of disappointments, a lot of pain, a lot of joy and a lot of insecurities. But we have witnessed the first section in detail. Now is the time to take up the discussion which was started initially and deepen it towards the question of how spirituality can be helpful, even compatible, if we want to continue with the impulse of Enlightenment that has grown out of science.

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Chapter 6

Distortions, Dangers, Further Considerations

In the final thoughts of this book I delineate a positive vision of what such a form of rationality might entail. Before I can do that it might be necessary to understand why it is different from any half-baked New Age or esoteric spirituality and what factors other than the distance between science and religion which we have analyzed in Chap. 3 contribute to the taboo of the topic in the first place.

6.1 Nazism and Spirituality

In order to understand why and how spirituality is such a taboo and is rapidly connected with topics such as esotericism, magic, voodoo, or irrationality in European, especially German but perhaps also in other countries' society, and why professional journalists or intellectuals who are committed to the business of enlightenment are so slow to approach this topic constructively, it is not sufficient to only evoke the tradition of enlightenment against religion, as I have done in Chap. 3. One has to also recall that Nazism understood itself not only as a political movement, but foremost as a philosophical or even spiritual movement. An important motive of Nazism was to restore some dignity to the shattered German collective self esteem after the collective trauma of the peace of Versailles, following the Great War. In Germany this had been perceived as a large and disproportionate humiliation. The ideology of Nazism tried to remedy this situation by glorifying the importance of the Germanic past, the mythical religions of the Germanic tribes, and by building the spirituality of a new German Aryan empire against the old religions: particularly the Judaic but also the Christian religion. In the inner circles of the SS pseudo-religious rites were practiced. Speer, Hitler's architect, was planning a new nationalist-socialist place of worship around the Wewelsburg close to Paderborn which was to

contain rooms that were dedicated to celebrating this new cult.¹ Apparently, the Wewelsburg is still a famous and important meeting place for neo-Nazi right wing groups. Himmler himself had a great interest in esoteric practices and some people see him as a home-grown black magic wizard. Hitler's affinity to esoteric teachings is also well known.² Hitler, again and again, recalled and invoked what he called "providence" to justify his mission, and he was probably personally convinced that he was fulfilling a quasi-religious mission (Kershaw 2000). It does not come as a surprise that the grand disaster of this purported mission instilled a deep sense of mistrust in those that survived, and in those that had either actually experienced this esoteric spiritual circus of the Nazis or are still historically aware of these relationships. Thus, a generic mistrust of intellectuals and those who feel themselves responsible for carrying the torch of Enlightenment against spirituality and related topics is understandable and still plays a significant role.

This history seems to have lain, systemically speaking, a taboo over the whole of society. The problem with this negative dialectic is that a completely perverse type of spirituality produced this taboo of dealing constructively with spirituality in general. If nowadays someone does in fact touch spirituality, there is already a general sense of unease, as if unwritten laws of good conduct were violated and rationality and enlightenment were in grave danger. This can only be addressed by actually committing this breach of the taboo very consciously and voluntarily, possibly even painfully. Only if we start to discuss spirituality in a somewhat unconventional and laid back atmosphere will we have a chance to actually break this spell that Nazism has laid over our societies.

The situation may be somewhat different in the US, where there seems to be a general unease with any kind of ecstatic, irrational and excessive emotionality that was probably part and parcel of the numerous spiritual revival sects that made their way into the US and generated a lot of hysteria.³

¹This is dealt with well in *Schwarze Sonne: Die Macht Der Mythen Und Ihr Missbrauch in Nationalsozialismus Und Rechter Esoterik* (Sünner 2009). This book also contains a lot of references and insights that present the dire world of the Nazis. Good references and summaries about the enchantment of German scholarship with Indian mythology and spirituality around the turn of the nineteenth and twentieth century that formed the scholarly-ideological backdrop of the ideology of Aryan history and its reverberations in German scholarly and popular culture can be found in *Learning in Depth: A Case Study in Twin 5 × 5 Matrices of Consciousness* (MacPhail 2013).

²This is presented in this way by Ravenscroft (1972). Although a lot of details in this book are wrong, the general idea presented there is probably comparatively close to truth. See also Kugel (1998).

³See the highly instructive introduction to *The Tibetan Book of the Dead* (Lopez 2011). Here the author describes the emotionally laden atmosphere of the mid nineteenth century, with the foundation of the Mormon movement and the beginnings of the spiritist movement. This is also well described in the introduction by S. Shandasani (1994) in his edited version of *From India to the Planet Mars. A Case of Multiple Personality with Imaginary Languages*.

6.2 Esotericism

The notion “esotericism” is often used to denote concepts and methods that cannot be aligned with rationality. Behind the notion we can also sense some kind of intellectual anxiety and fear of the unknown. It may have less to do with the populist rise of the Nazis than with the fear of the unpredictable, uncontrollable, and perhaps fundamentally irrational. “Esotericism” denotes, first and foremost, simply a teaching that has been kept secret and has not been made known to the majority of people. In earlier times when there was an ideological monopoly of the churches it was dangerous to have other types of philosophies, perceived as aberrant by the mainstream ideology. Wherever old folklore was still alive and well, as in the traditional types of folk medicine and healing, this was frequently branded as witchcraft or magic. Together with the economic interests of the rising groups of medics, the church authorities had to subdue these old teachings. Quite frequently those involved were burned as witches (Easlea 1980).⁴ It is not surprising then that such teachings and traditions had to go underground.

Other “secret teachings” can be found in the Jewish Kabbalah, a specific type of mysticism that used the numbers and the numerical values of the Hebrew alphabet and the fact that in the Hebrew language only consonants are written. This makes it possible to use a piece of text of the Torah to produce innumerable meanings or to go deeper into a purported secret underlying that text. The mystical Kabbalah uses quick permutations of possible words as a type of meditation (Idel 1988a, b; Lancaster 2000). Even during the Renaissance it was customary to postulate that wisdom and secret teachings were contained in old texts and to look for them. Perhaps now and then there were such old texts that very few people knew of: These would have had to stay underground during a time of doctrinal monopoly in the churches and would only have been known to a very small circle of people. In that sense, “esoteric” only means “handed down in secret” or “known only to a few”. The opposite notion is “exoteric” which denotes public knowledge available to everybody.

Another meaning of “esoteric”, which is more symbolic, is the meaning of the “spirit” or the “experiential core” of the teaching. Frequently “esoteric” and “mystical” are then used interchangeably. Such an understanding invokes St Paul, who talked about the spirit that makes us alive in opposition to the law that kills.⁵ In this

⁴Women were often treated as witches because they had knowledge of old forms of healing or of medicinal plants and treatments. However, these trials of witchcraft were often limited regionally, and had other reasons, such as personal envy, as well. It is very interesting to see that the official Roman Catholic Church was very skeptical in most cases and it was the local Inquisitors who were eager and overzealous. Additionally, most of the persecutions happened relatively late in the seventeenth and eighteenth centuries and very often in Protestant areas (Decker 2005; Ginzburg 1991).

⁵This is beautifully translated into sound by Bach in his motet “Jesus, meine Freude” (Jesus, my Heart’s Desire). Here Bach stakes death against life and groups the piece around the central five part Fugue “You are not flesh but spirit”.

sense what I am trying to say here is indeed a vote for an esoteric, i.e. experiential, understanding of religion that comes from insight. But it is important to understand that this notion of esoteric is quite different from the notion that an aggressive, rationalistic understanding of enlightenment pitches itself to battle against because they think it is irrational. In those circles it is customary to curtail one's fantasy and allow as real only what we can stipulate with today's knowledge: Everything else is expelled under the notion and verdict of "esoteric". "Esoteric" thus becomes the war cry of rationalist, self-appointed knights of the Enlightenment movement for everything they feel called upon to fight against. I explicitly vote against such an understanding. And because I don't want to be misunderstood, I don't use the notion of esoteric, and I don't find it very helpful.

6.3 Rationalism, Enlightenment "Light", and a Broader View of Rationality

I hope that I have been successful in documenting that I am not arguing for giving up rationality in the service of a vague and opaque type of mysticism. If anything should be abolished then it is the misunderstanding of rationality as being the only faculty that can decide what is right or wrong. It does so within the framework of an Aristotelian two-valued logic, i.e. within a given set of rules.⁶ If we, however, reduce rationality to the notion of an algorithmic type of rationality then we can delegate the business of thinking to computers. They are much better algorithmic machines than we humans. This is also the reason why in philosophical concepts of rationality this narrow concept which was only meant for sentences, but not for thinking about reality in general, had a very particular role, namely to decide about the truth of sentences. Additionally, there were various types of rationality. Aristotle, for instance, distinguished between intellectual activity in a broad sense, such as "insight", and rationality. While insight is not identical with logical reasoning but much broader, rationality in a narrow sense is tied to logic. This is because it uses propositional structures, i.e. sentences that attribute properties to things. However, if you have an insight, for instance you suddenly understand the sentence of Pythagoras and why it is true, you employ a broader faculty of rationality.

⁶Aristotle was the first to formally deal with the issues of logic and pointed out that in a frame of sentences, a sentence can either be true or false. It can only rain, or not rain, not both at the same time. Formally, this is expressed in the logical truisms such as the Sentence of the Excluded Middle: Something cannot be, at the same time, under the same circumstances, at the same place and not be. This is the basis for our common logic which is also called two-valued, because it only has two truth values: true and false. This is the basis of our algorithmically operating computing systems which are built on that logic. This is also the reason why it is sometimes called Aristotelian logic. There are other logical systems, for instance, for situations where there is more than one truth value, as pointed out by Putnam (1975) in his papers on quantum logic. However, this should not be misunderstood as a free ticket for sloppy thinking. Logic needs to be mastered, before it can be transcended.

If we understand thinking and rationality in a broader sense, however, then spirituality plays an important role. Spirituality will bring us into contact with the *sources* of thinking and rationality and help us transcend them in the sense that the basic structure of what is at the core of reality and is experienced as such a source cannot be expressed in logical sentences of “true/false”, “either/or”, but transcends them. I have pointed that out previously. Jean Gebser (1985) has made it clear that we are living in an epoch that can be called “mental”. This is dominated by rational, logical and causal analysis as we are currently used to it. It is heavily biased towards allowing only facts and experiences that can be analyzed using the two-valued logic of Aristotle. For Gebser the signature of this type of consciousness and way of being is the invention of perspective, which allows the observer to distance himself from the object of contemplation. This “mental consciousness” is identified with its rationality and is in danger of forgetting its own deeper layers, its bodily being and emotionality, but also other sides of the unconscious. Sometimes it will even actively negate them. In the same sense, mental consciousness is prone to overlook that it is embedded in the overall context of nature and other living things.

Gebser assumed that in our times a new type of consciousness will arise. He denoted this as “integral” or “aperspectival” consciousness, and thought that we are currently witnessing the first indications of its gradual development. Different developments in the arts and in science pointed towards such a new type of consciousness: for instance the multi-perspectivity of Cubism, the light drawings of Picasso which seem to capture time, the paradoxical structure of quantum mechanics, to name but a few – these were all signals to Gebser that there is a new type of consciousness slowly but surely coming to the fore. We may assume that he had a kind of “enlightened consciousness” in mind when he talked about this integral consciousness. Exactly how it would look he didn’t say. He thought it was in the making and that only the first glimpses could be seen. There is one thing which he was sure about: It will transcend mental consciousness without extinguishing rationality. On the contrary it will include mental consciousness without being limited by it.⁷ Mental consciousness – and all other stages of consciousness before it such as the mythical and the magical – will be available to the integral consciousness and are “integrated” into it, “taken up” in the sense conceived by Hegel, with the integral consciousness reaching into and beyond them. We might be able to simultaneously see multi-perspectival and seemingly contradictory aspects of reality and their partial truths together, allowing them to exist together. It is not irrational but perhaps hyper- or super-rational, and therefore might alter and improve rationality.

In this sense the thesis proposed here is comparatively close to Gebser’s notion of an integral consciousness, although my point of view is less about supposed structures and capacities of consciousness but simply about practical and psycho-hygienic aspects and the practicality of the business of enlightenment. It is very easy to use notional labels such as “esotericism”, “magic” or “destruction of rationality” to pigeonhole my attempt, and then think one has done a service to Enlightenment.

⁷Atmanspacher (1993) has tried to clarify this and used the term “rationality of Metis” to describe it. Elsewhere, Atmanspacher and Fach (2005) operationalize it via the term “acategoriality”, which was another notion used by Gebser to describe what he meant by “integral consciousness”.

True thinking starts where everything else breaks down, at the borders and beyond, and begins to become constructive where everybody else is busy looking back on well known terrain. In this sense it is to be expected that spirituality that is not bound to a certain type of doctrine but is open to its own experience will also do a service to both thinking in the philosophical sense and rationality by leading them beyond themselves. There is no reason to worry, then, that spirituality will abolish rational thinking, or help degenerate human mental capacities in general. On the contrary: Spirituality expands and deepens the meaning of rationality.

When attempting to talk about and to communicate spiritual experiences we bring them into contact with the world and the logic of sentences, with all the problems of potential contradiction to traditional wisdom and alignment of the experience with current notions arising. This is where the business of thinking starts. Can certain known teachings, for instance from theology or philosophy, be used to express an experience? How can we align our individual experience with the collective experience of our culture and the tradition it produced? Does it fit with the state of knowledge and wisdom our culture subscribes to?

All these and other questions demand some serious thinking and exploring. This is the place where something new and central will happen⁸: This is the place where individual experience that is formulated in the first person singular and which only deals with myself is confronted with collective experience that is commonly called “tradition”. Thus it makes a transition from the “I” to the “we” or it has to confront this “we”. This is a transition of the first person singular into the first person plural, a process in which individual experience is being enriched by culture and culture is being changed by experience.

Dialogical thinkers like Martin Buber and others have always pointed out that only in such a dialogue can truth manifest. This truth in dialogue resides in the “in between”, between my personal, very individual experience and the truth of the “we” of others, the tradition. It is only in this dialogue and exchange that this experience is transformed into insight. At the same time this insight and understanding changes the whole notion of the tradition, even if only in tiny steps. In this sense it is impossible to abstain from rational discourse, even if the topic is spirituality. By this I mean that spirituality has to become a topic in the context of public discourse, such as research, academic teaching, in lectures, seminars, conferences and meetings, and finally also in the public fields of theatre, politics and newspaper commentary. It is not sufficient to leave our rationality in the wardrobe. It might be important to understand that at the moment, collectively, we are reducing ourselves to a very limited form of rationality that can only allow things and methods that we are familiar with, and thus is not using its full power and capacity. My plea would be for a broadened type of rationality in the sense of Gebser’s “integral consciousness” which attributes an important role to analysis but does not make it the pivotal player. Spiritual experience would be, in this sense, one way of understanding the structure of reality, from the inside through insight.

⁸We have tried to elucidate this process and postulated that this is the place in which spiritual experience becomes knowledge (Walach and Runehov 2010).

This insight transcends the sequential algorithmic procedure of common rationality. I have used the example of creativity earlier. It is a little like the creative discovery of new theoretical or artistic structure. This happens in a flash of holistic insight. But that does not relieve us of the need to translate what we have seen into concrete reality. A composer needs to sit down and write out the music after he has received the global impression.⁹ The painter has to take out his paint, the sculptor his chisel, to produce the concrete and material example of what they have seen. The scientist starts to spell out his ideas in concrete formalisms, conduct experiments, or analyze a theory and so forth. All these are processes which use rationality, logical analysis, and mental capacities. In this sense the relationship of spirituality and rationality would be complementary in the sense elaborated above: Both are necessary in order to understand the process of human insight, neither alone will suffice, and neither is reducible to the other.¹⁰ Therefore the notion of rationality alone is not sufficient in my view for understanding this type of insight or to give it its final form. Both will be necessary, and if spirituality is understood properly, without dogmatic limitation, then it can enrich our thinking, even make it fuller and more complete, and will certainly not contradict rationality.

6.4 Potential Dangers

The keyword and caveat in the last sentence is the restriction “without dogmatic limitation”. Spirituality at the moment almost always happens, explicitly or implicitly, in connection with a religious system, or is perceived as being dependent on such a religious system by others. Whether that has to be the case is another question. It is quite difficult to break loose from dogmatic bonds and to separate experience from an interpretation within the framework of such a doctrinal system. It is tempting to interpret one’s experience immediately and perhaps in a single handed way within the context of a known doctrine, and to understand it as an experience of a certain type of interpretation of reality. This collapses experience into an instantaneous and ready-made interpretation. Our human need for belonging and our customary habits force us to. It is absolutely essential not to jump quickly into an interpretation. This is the only way of preventing that we or others instrumentalize our experience in the service of a particular doctrine, or, stated differently, only if we can prevent such instrumentalizing by ourselves and others can we retain the reformative thrust of our experience. This is also a contribution to reforming the

⁹It is known of Gustav Mahler that he wrote the incredibly complex score of the 8th Symphony in E flat major after having had a musical vision about it. We also know of Mozart that he heard his music in the mind and simply wrote it down. This “inner hearing” is clearly more than an algorithmic clarification of a structure, and is probably more akin to a holistic viewing of an inner enlightenment or what I have here called a spiritual experience.

¹⁰That there is a basic complementarity of different types of epistemology and knowledge has been pointed out by Nils Bohr (1966). We have taken this idea up in *The Whole and Its Parts: Are Complementarity and Non-Locality Intrinsic to Closed Systems?* (von Stillfried and Walach 2006).

doctrine. A lot of pain and misery has arisen from the human tendency to mistake our mental structures such as faith, theories, and models for reality and our experience of reality. Wars have been waged for such doctrines in the opinion that it would be good to spread the truth. Spirituality here has a corrective function, pointing out over and over again that our opinion or model of reality is not reality itself. It strengthens our own experience, and thereby our own ability to check the models that are available for plausibility.

It goes without saying that critics who highlight that there is no such thing as experience without interpretation have understood an important point here. We always have a tendency to couple our own new experiences with an already existing semantic network and thereby to interpret them. But for one, there are experiences that for the time being cannot be interpreted or for which customary interpretations are not sufficient. All classical conversion experiences fall under this category. Additionally there is also the possibility of keeping new experiences on hold and not interpreting them too quickly or perhaps allowing multiple interpretations at the same time.

Finally, it might be linguistic creativity that is called upon. New experiences need new forms of expression. This is the meaning of the Jesuanic saying that “new wine has to go into new vessels”. Problems often only arise if we feel ourselves committed to using old and existing linguistic structures. This is where spirituality meets creativity in language. Anyone who has read, for instance, the texts of Meister Eckhart knows that new experience also forced what is expressible in a given language to its utter extreme and beyond. Thus, new experience will also coin new terminology, perhaps even new modes of expression. One other mode of expression, apart from talking or communicating verbally, may be action. Another is art. And still another is doing science, differently.

6.5 Narcissism

Our postmodern western soul suffers collectively from a continuous narcissistic wound. Not only are we not as clever and good as we think we are, not as beautiful as we would like to be, not as admirable as we dream, no, there are also quite a few other people that are just as clever, good, beautiful and admirable as we are, or even more so. The air at the top is thin, and atop the winner’s podium there is only space for one or two people. One who has grown up in the cultural climate of western societies of the twentieth and twenty-first centuries will have received a culturally formed, basic narcissistic heritage on his or her way.

This does not mean we all have a veritable clinical diagnosis of pathological narcissism. Although this might be more frequent in western than in other societies, this is not the point here. I am referring to a basic theme that we have to deal with. This plays out on three levels: the personal, the collective cultural political, and the spiritual. Let me explain:

Psychoanalytic theories were broadened out in the 1960s and later the original Freudian analysis developed into the self or object-theories. Heinz Kohut (1977) and Otto Kernberg (1985, orig. 1975) are two of the important authors of this development. Importantly, Kohut has seen that next to the development of the primary drives of sexuality and aggression, there is also the need for self-esteem of the individual, which has its own independent developmental line. Whether and how we experience ourselves as valuable people who are content and satisfied has its own development, independent of other needs and drives. Ideally, we experience ourselves as accepted, loved, and dignified as a consequence of satisfactory and constructive human relationships with our parents and important others in our environment, at least in general terms. This Kohut calls a healthy narcissism. Narcissism refers to the positive emotional valuation of our own self, and as such it is a positive notion that describes a natural state. If this positive process of exchange with the environment is broken, however, perhaps because of a lack of empathy by our parents at important points in our childhood or because the mirroring that we all need when we are children has not happened to a satisfactory extent,¹¹ then our self esteem can suffer breaks and damages which in common language is called low self esteem. Our image of ourselves becomes shaky and we then sometimes have the feeling that we cannot perform properly, we have no worth, others are better than we are, and so forth. But it can also happen that such damage to our self esteem is compensated, and then we feel ourselves to be unbeatable or outstandingly good, entitled to everything, and that everybody has to follow our commands. Both types of self-image can be varieties of a shaky narcissistic self. This does not mean that clinically manifest problems will arise, although this might be a probable outcome in difficult cases. But a lot of our everyday problems such as disappointment in relationships, quarrels with a boss or colleagues, or disputes in social relationships are frequently consequences of such narcissistic problems.

We could now follow up with a social analysis and interpret the collective German history during Nazism, the National Socialistic Movement, as a collective narcissistic response to the degrading situation in the wake of the Versailles Treaty and the defeat of the First World War. The Nazis were adept in using this collective lack of self esteem for their own purposes in their rhetoric of Germanic superiority, and some of their leaders, such as Hitler himself, and likely others as well, had massive narcissistic problems themselves (Miller 1981, 1983). At the same time the decline of this illusion in the flames of the Second World War has led to an even stronger narcissistic problem for the whole nation: parents who were not available to their children because they had to rebuild society and, later on, children who were overfed with material goods. In this way we have a double dilemma of narcissistic deprivation and affluence, the latter being likely more prominent nowadays.

¹¹ Parents normally comment positively on the behavior of their children, especially if they have small successes and progressions. This allows the children to experience that they are loved and liked just the way they are. At this point the development in self-theory is in close alignment to the attachment research that has sprung from the work of Bowlby (Bowlby 1969; Fonagy et al. 1995).

This can be seen in a collective attempt prevalent in the whole of society where each individual is in need of ensuring their individuality. The cult of the Ego seems to be undiminished, perhaps even stronger than ever. The individual, in his or her attempt to prove their importance, is put under continuous narcissistic stress. They have to constantly have new clothes to remain visible and to be able to show their special status and to keep being clever and unbeatable at all costs. It is almost impossible to withstand this continuous stress. The talent shows on TV suggest to all that everyone can be a star and can be different from the crowd. In Germany the term “Ego Incorporated” was coined by politicians a few years ago to kick-start a movement of single people going freelance. At the same time it marks the specific stance of that time: I am the greatest, it’s just that nobody has recognized this so far (and I don’t really believe it myself). This results in fragile relationships and even more fragile personalities.

Spiritually speaking, the task of transcending one’s ego in one way or another will always exist. But before this can happen there has to be an ego to speak of in the first place which is stable enough to contain spiritual experiences and to be transcended. If a person who is narcissistically fragile attempts to heal him- or herself in the due course of spiritual experiences there is a considerable danger that these experiences can be misused. One way of misusing it is to aggrandize oneself instead of becoming more humble and functioning better socially, and to become more arrogant and less patient. These are the self-appointed gurus, and indeed there are needy people who flock to this alleged source of wisdom because they think themselves that they would find the wisdom for their life here. Lots of would-be gurus like this exist, and very few actually realize that they lack originality and their teachings are quite provincial. Narcissism in the spiritual community is a very common problem (Walach 2008).

Spiritual experience, however, can actually help to heal narcissistic wounds: Suddenly there is a feeling of being part of a larger whole, or of having access to one’s inner resources that mediate purpose and community. Nevertheless there is a considerable danger of misusing spiritual experiences. This happens when they are used to exalt the importance of the individual ego. Perhaps the most subtle of these seductions and the most difficult discrimination to make is between a true source of experience and a helpless ego in search of plastic surgery for narcissistic wounds. For outsiders, if they have not lost their healthy mind and can keep some distance, it is often very easy to recognize. The path of spiritual experience will, at some point, inevitably lead to self transcendence in the sense that what we took as mandatory for our ego will have to be questioned and perhaps even given up in order to follow the inner imperative of our spiritual self. For one person this may mean giving up freedom that has long been considered necessary in order to enter into a committed relationship with another person. For another it might mean a public visibility that has long been considered inconceivable becoming suddenly inevitable. Very often it will mean giving up parts of the image of ourselves and our old self models in order to let new things arise. This will nearly always lead to the painful insight of how limited our construction of ourselves has been so far, and the insight of how we obstruct ourselves is not always a blissful one. Very often it also means

recognizing how our habits, which we think belong to us, are actually sabotaging ourselves in a very deep sense. This insight means that we ourselves are alienating ourselves from our sources and our depths by what we construct to be absolutely necessary for our happiness.

Traditional theology has misunderstood this fact to a large degree and has provided us with a notion of “sin” that is very difficult to understand. In the way I have presented it here, which is, by the way, biblically and theologically grounded, “sin” means alienation from ourselves and our deepest roots. This insight is a narcissistic wound because it relativizes us in our purported brilliance and grandiosity. When, as in many spiritual traditions, it is said again and again that the ego has to die or the ego has to be given up, then it actually means that we must tear down those facades of self-aggrandizement in order for our true core to become visible again. Sometimes this can only happen through the many small deaths of what we have built up in terms of crutches and scaffolds designed to keep our self-esteem propped up and alive.

If a person is psychologically healthy, they have a well anchored feeling for their own value without under or over-estimating it. Then a spiritual experience is normally easy to integrate and will lead to even stronger psychological health. But we have to be prepared for the fact that a lot of us, through our collective and individual history, carry with us more or less serious narcissistic wounds. The conditions under which we have grown up, the political, historical heritage of the collective narcissism of the Nazi time and the economic growth and affluence in other countries following this period suggest this. Under these conditions spiritual experiences are not only the balm on old wounds, they can also be a pretense to avoid dealing with these wounds. Thus I think in our times and in our cultural contexts the framing of spiritual experiences within good clinical psychological contexts can be important. Whether this happens through spiritual leaders that have clinical training and thereby provide the competency, or whether someone combines spiritual and psychological work in parallel or in sequence doesn't really matter (Bobrow 2010). It seems to be important that we become sensitive to this problem. It will help us understand more critically, in ourselves and in gurus and teachers, where true experiences and interpretations exist and where a fragile ego is trying to use these experiences to bolster its fragility.

But even a strong and well grounded ego will, psychologically speaking, not be able to avoid deconstruction. The reason for this is that the experience within a relationship will always relativize the importance of its own being in consideration of the pain in the world and the tasks that have to be managed, and that will inevitably litigate against the individual aims of happiness and peace. Some say that the ultimate experience is the complete loss of the ego. This certainly does not mean that we lose our ego functions such as wanting, acting, thinking, feeling, perceiving, and sensing, but it may mean that we have to get rid of the higher constructs such as our beliefs, or the thoughts we have about ourselves, the world and our relationship to it, or that we will have to conceive these anew. A strong and calm ego will be able to support these experiences. In that sense I think it is important that narcissistic wounds are healed to create such a strong ego before we can actually make that step of transcending ourselves.

How can we actually find out whether we are following a guru that is using his or her spiritual experiences to nourish their own narcissistic needs or whether we are dealing with a seasoned teacher? This is not always easy to say but here are a couple of hints. “The discernment of spirits” previously mentioned is also important here. Ultimately, it is always necessary to ask questions, and if it is prohibited to question then there is always something wrong. The question to pose is: Does the spiritual practice, belonging, direction and the commitment to a certain teacher help me to become freer, happier, and more accepting of other people, allowing them space? Freedom, happiness and the ability to love seem to be the easiest signs and indicators. If narcissistic gurus are active, these are signs that help identify them: you will practically never find dissent. If someone expresses dissent then, very often, they simply disappear without anyone noticing or mentioning it. The themes disputed are then dropped and people think that with the individual who raised the disputed theme, the problem is also gone. The conversation very often does not deal with an issue or a topic, but revolves around the grandiosity of the guru and teacher. More important is the fact that the teacher him- or herself does not protest against being put on a pedestal. I have pointed out above that each and every spiritual tradition has rituals and teachings that are intended to reduce the power and importance of a teacher and a master. The Christian tradition uses the ritual of the washing of the feet. Teachers who don’t do anything to stop this aggrandizement by pupils or dependents, and who even reinforce this, do not seem to be dealing in a conscious way with the danger of misusing such relationships in a narcissistic way.

Each guru who uses his experience to improve his own narcissistic standing will inevitably have narcissistic followers flock around who project their own narcissistic wounds onto a guru whom they then can venerate. One way of recognizing narcissistic spiritual systems is by the existence of a multitude of followers who lack in critique and creativity and who revolve around the central figure like planets around a sun. Mature spiritual communities very often have decentralized structures. These help to share tasks, power, competencies, and decisions and although such communities may have a teacher, who may be the first among equals or *primus inter pares*, he or she will try to foster such an understanding in his or her pupils and followers. Such a leader will help strong and young students to find their own ways, even though this way may lead to a separation or completely different track. Narcissistic systems can be easily recognized in that they often have structures of exploitation or self-exploitation. This happens when working overtime is reinforced, if money or similar goods are demanded as payment for spiritual guidance, or, in the worst case, where emotional and/or sexual dependencies are created, turning the spiritual devotion into emotional or sexual devotion.

I think that with the history of our western culture it is important to foster an open and conscious discussion of the theme of narcissism in the context of spiritual experiences. In spirituality we always have the topic of transcending one’s own ego, of giving up old structures so that we may grow. Ego structures, like every single organism, will cling to survival. Thus the theme of narcissism will always exist whenever or not spiritual experiences make serious demands on changing one’s life. At the same time, the collective discussion of spirituality will be the only possibility

of discovering and healing narcissistic wounds. In this sense, the spirituality that I have sketched here is a serious enterprise for all those who want to grow, and not just a playground for bored Yuppies. It is a survival strategy for humanity whose development and over-individualization without appropriate connectedness to the world and the planet will reach the boundaries of growth. This narcissism leads to psychological deprivation, but it can also show us the way out. To quote the German poet Hölderlin, “where there is danger, what will save us grows alike”. It is within the realms of spirituality that we have to deal with our individual and collective narcissism, with our personal and collective wounds in the façade of our own ego. But it is also within the precincts of spirituality that we will find the healing of those wounds, and perhaps it is even through spiritual experiences alone that we can reach the understanding that only through connectedness with others and the whole can we become ourselves in the deepest sense. Whether we then say we have found our deeper nature, our own true being or have transcended our ego is perhaps irrelevant. Now we have reached the point where we can deal with the topic in full.

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Chapter 7

Getting on with Enlightenment: The Necessity of a Secular Non-dogmatic Spirituality

We will proceed in the following manner: We describe some major problems which are pretty evident. I will show that those problems will be difficult to solve without spirituality, and may perhaps only be solved with violence. We want to see how spirituality could be of help here.

7.1 The Crisis of Meaning and the Danger of Fundamentalism

We have seen that the social institutions that have provided meaning until recently are losing influence. The outreach of constitutionalized religion, at least of the Christian tradition, seems to be decreasing in the Western World, if we take the statistics about church attendance and membership seriously. The vacuum is filled by consumption and the entertainment industry. Consumption and entertainment, as nice as they might be, won't provide answers to the deeper questions that bother a lot of us: the questions of the purpose of life, the meaning of the world, of how we should live, and of the right decisions in important life situations.

The old goal posts have not only been moved, but lost. The road signs are pointing in the wrong direction, are illegible, or are even pointing backwards. The post-modern state of being is, whether we like it or not, to be cast back on ourselves. While the wave of existentialism in the 1960s provided some benefit because it emphasized freedom and choice, this freedom was cumbersome to gain, at the masochistic cost of decision and insecurity. Today a lot of people want to have it a little easier. This is where fundamentalism enters the stage. It promises security, reduction of complexity, clear directions for action, life and salvation in a goldfish bowl of a clearly delineated world. It robs those that bow to it of their dignity and reason, and poses a danger to the welfare of the world as a whole. Fundamentalism and the reductionist view of reality work only if you compartmentalize the world into parts

and ostracize those that do not fit the neat picture. Those enemies and opponents must be removed for the system to work. This is true for religious fundamentalism or scientist fundamentalism alike. Most importantly, as a consequence, they call for war, fighting, animosity and, in final consequence, devastation.

For instance, an Islamic fundamentalist may hold the opinion that all problems come from Christian/Jewish dominated Western culture and its way of looking at things and dealing with the world.¹ Consequently there can be only one solution: to fight this western world and to prevent its further progress. This is exactly what has happened. The reply of the fought enemy is exactly as would be expected: American politics has defined itself as the victim, has started Crusade rhetoric and an alleged fight for freedom paying back in the same currency of violence. The result can be seen daily in the newspaper: fighting, terror, misery, poverty.²

Now we see Christian fundamentalism as an answer to Islamic fundamentalism, with a calling to arms similar to that of Pope Urban in medieval times. The weapons will be different and they may only be weapons in a metaphorical sense, but as long as we are moving along the line of doctrine, as long as one fundamentalism is pitched against another, there will be no constructive solution reached, let alone progress. In this situation there can only be victims and the victimized, and often at the end those who prevail will lose the fight. As long as we have political leaders and personnel who can only think in categories of black and white, good and evil, friend or foe, either-or,³ the same problems will arise ever new. The problem with fundamentalism cannot be tackled on the political plane. It can only be solved by finding meaning both on an individual level and in the sense of a collective culture of meaning, out of which possibilities and the availability of spiritual experience will arise all by itself. Those who have found experience, and from it, meaning and purpose in their life, will be resistant to trickery, dogma and fundamentalism, and won't need any reduction of the complexity of our reality offered by some purported savior. In this sense, responsible citizens are not favored by politicians because they cannot be made believe everything. They are, however, the only chance for a stable future worth living in.

¹ It goes without saying that I am using the current topic of Islamic versus Christian fundamentalism only as an illustrative example for its political prominence. I could use Islamic fundamentalists, versus Islamic liberal forces, Hindu fundamentalists, Shiitic fundamentalists versus rational forces in Iran, or Catholic fundamentalists versus a liberal mainstream in the Catholic church – examples galore.

² It is easy to see that the real motive behind this alleged war on terror was political domination and economic profit.

³ Note that this is exactly where an over-emphasis on logical-analytical thinking goes against the very goal of rationality: In the name of rational analysis completely irrational decisions are taken. This is so because a broader concept of rationality that also takes into account deep layers of reality is lacking. This is where spirituality can help as an antidote to logical-analytical reasoning overstepping its boundaries.

7.2 Thinking in Isolated Entities and the Climate and Energy Crisis

The kind of thinking that takes its starting point from the experience of interconnected unity cannot take scientific and political concepts that do not honor this unity seriously. Our whole energy generating and economic systems are built as if we could isolate our own economy from the rest of the world, and that of our times from that of future times. Where globalization has been used as a war cry, here it is used as if globalization can be achieved across space neglecting time. We are running our economy at the cost of others and, most importantly, at the cost of our future generations. It is a simple truth, known for many decades, that our wellbeing and economic growth can only be secured by importing cheap energy and raw materials and by exporting expensive and technically refined goods. Since most of the energy which we use is fossil, we are heating up the atmosphere. Since we don't understand the ecological system of the earth well enough, we don't really know what consequences this will have. If we are lucky the planet will stabilize itself on a different level, as it did in the ancient Cretaceous Period when higher temperatures than today's were the norm. But it could be that this stabilization will happen at the cost of other domains and areas. For instance, it could result in a change of precipitation patterns, a rise in sea levels or a reversal of large scale sea currents, with unforeseen consequences. Whatever is going to happen will happen because we are not following holistic concepts of economy, policy, and management of crises that are borne out of consideration for the interconnectedness of all beings. If scientists, who in this scenario are the only globally operating entity, come to an exceptional consensus that warming the earth is man-made and dangerous, the response still falls prey to provincial political thinking because politicians fear that they will lose their power if they try to convince a grumbling public that they have to change their style of living.

Quite likely, stopping the use of fossil fuels will also stop earth warming, and using atomic energy seems to be the solution. But we are using atomic energy as if we were dealing with recyclable zinc or carbon batteries. We can ignore at our peril that we produce products the dealing with the aftermath of which will occupy hundreds of generations. We can ignore that this will lead to cheap energy at the cost of high political and health risks.

Thinking that grows out of a holistic view of an experience of unity will try to reach solutions that are compatible with the whole, not only in our current times, but also in the future. Such thinking would have already looked for alternatives at a time when atomic energy was supported by public money. We have no idea where our energy technology would be today if all the efforts that have gone into dividing the atom for military and energy purposes had gone into the development of alternative and an ecologically compatible usage of energy. This could have included photovoltaic energy and a host of other technologies ranging from atomic fusion to solar hydrogen technology, which are currently still futuristic concepts. The foundations for all these concepts have been known for at least as long as the foundations for

splitting the atom. It was a political decision made from the vantage point of a certain limited mentality that has put precedence on the developments which we have seen.

Take solar hydrogen technology as an example: Here solar energy is focused in huge parabolic mirror systems to produce hydrogen. This can be stored, transported, and used for burning wherever necessary. The waste product is water. No greenhouse gases, no heating of the atmosphere, no toxic side products. The only problem is: Hydrogen can only be produced in arid areas around the tropics, where enough sun radiation at a steep angle and little clouding is the rule. That means: Without political stabilization, equality in political relationships, and fair economic exchange patterns this cannot work. What is the precondition for that? A global realization of the interconnectedness of our planet and all living beings on it in a space-wise, but also time-wise pattern. How to reach this? The respective – spiritual – experience by enough people, especially those in governing positions, seems to be a necessary, and perhaps sufficient precondition.

It is not only the actual scientific development of discoveries that govern our world and technological development. Mostly it is the fundamental decisions made on the highest political planes which steer the direction of development, decide what will be funded by governmental money, and by whom laws and regulations are passed. These decisions are informed by unconscious, or sometimes very conscious, value judgments and patterns of thinking. Only when we see a culture of mindfulness and a culture of action rooted in reverence for the whole on this political level will we see changes that lead in a direction which will also allow science in its individual processes to go down roads which are currently subservient to this larger development. This culture will only take root when we have top politicians and political administrators that are fearless and work from a place of inner conviction in ways they believe to be correct, regardless of whether it will serve their re-election and that of their parties or not.

7.3 The Threat to Peace and the Peace Between Religions

A few years ago the ostracized Catholic theologian Hans Küng (1990) formulated a thesis that peace between nations is dependent on whether it is possible to find peace between religions. It is of less interest whether religions are the forces behind war or whether they just serve general patterns of thinking for politicians who have war in their baggage. It is a fact that since the Second World War more people have died in war and from its consequences than in this huge war itself. It is a fact that for many people their current situation is so disastrous that, according to WHO, 1 million people a year take their own lives in suicide, in a kind of continuous war against themselves. It is also a fact that religions, sometimes directly, sometimes indirectly, encourage war. The late Pope John Paul II acted as an incessant preacher against war and for interreligious dialogue. This has initiated an important change in the official perception of the Catholic Church from the outside. But it is only when in

the heart of religious communities themselves the insight and experience grows that we all live in a basic common reality, and that out of this reality we develop our, sometimes limited, faith; only when religions stop becoming advocates of absolute truth and start to peacefully co-exist, only when they dialogue and start exploring the meaning of their own interpretation of absolute reality; only then will there be a trace of a new pattern of behavior towards peace, when those who are different are acknowledged and accepted. It only takes one glance at the list of the hot conflicts of the day to see that a large part of those world conflicts are fired with religious fuel. The head of the list is the continuing Near East conflict, followed by all other conflicts between countries of the Middle and Far East and Western countries. The terrible fighting in Sudan and various other conflicts in Africa too may be traced back to the basic conflict between Islam and Christianity.

Only when there is a culture of spiritual experience within the leading echelons of the respective religions will this situation change. That doesn't mean that religions have to converge towards each other, forming a kind of unitarian mish mash. This is certainly neither possible nor desirable. However, when every religious community nourishes their own spiritual roots, their own spiritual calling, and realizes and understands them, then there will be more commonality between them than difference. Then there will be more fraternity than doctrinal purity. Most importantly, there will be understanding of the value of difference. Without this understanding there will only be the attempt to dominate born out of the arrogance of believing they have the better, truer, and more humane system.

When religions can no longer be used as instruments for fighting, be it by cliques of power or by religious leaders, then one of the historically most important motives and instruments of justifying war will have gone. There might still then be wars because one wants power over someone else or because realms of influence need to be secured for profit. But then the cards are clean on the table. Then people will have war because they want to have space for a pipeline and not because western Jewish-Christian culture has to dominate. War against someone whose raw material one wants, not because he is the follower of a religion which threatens our libertarian values. Such clear motives can then be seen through more clearly and perhaps prevented by rational political discourse.

Let's imagine the impossible for one moment: All those creative heads that at this moment think and work on the development and perfection of new weapons, who dream of containment of supposedly dangerous states, who think about strategies and scenarios for future wars, all these would be sitting around one table working on constructive solutions to problems. For instance, on energy sources that are ecologically acceptable. On ways to recycle and remove waste products. On economic cycles that serve everyone. On looking at those processes that govern the world as a whole and how single elements participate in this. Let us imagine that billions of dollars of resources would, for a change, flow into the development of a culture of peace. Perhaps such a utopia would soon become boring and some exceptionally clever head would discover war as a way of entertainment. But perhaps they would also lead to an unthinkable way of development. It's hardly imaginable.

It seems that only a culture of experience of connectedness will give us the power and the motivation, and also the instruments, necessary to change the forces of war into forces of peace.

7.4 The Problem of Misery and Poverty and the Distribution of Goods

We seem to have accepted, individually and collectively, that our system of economy is created as it is, and thus we not only produce goods and services, but also rich and poor as a side effect of these economic processes. He who wants to live has to produce. He who produces has to play at economy. He who participates in economy has to give reinforcements and has to pay those that work for him accordingly. He who does that has to differentiate and he who differentiates will create rich and poor. As the existing system of riches and power are closely amalgamated, if not the same thing, there is little expectation of change if we are not prepared to question the whole system. And this will only help if those who question the system are those who are actually currently sustaining it.

I am not an economist and therefore don't have easy recipes for how it could be different. I only know that our current system isn't optimal because it is built on the poverty of the majority in favor of the wealth of a minority. The spirituality of connectedness which results from a deepened experience of unity would probably come up with more intelligent concepts of economy. Such concepts are actually already in existence but not very widely known and currently don't have a majority. One could, for instance, punish the amassing of money through a process of devaluation. One could start to find completely new mechanisms of attributing goods. One could, from commonly achieved wealth, distribute what is necessary for life to everybody, independent of their workload or work contribution, and otherwise count on the fact that in general people like being active and like to contribute, participate, and commit themselves to the common good. It is clear that a lot of changes would have to occur in order to make such concepts possible, fit for a majority and fit for reality. We could assume that from a culture of basic connectedness the development of such concepts, as well as the respect for necessary rules, is possible. If the Waldensians were able to apply such models in small communities in the Middle Ages, then we should be able to do that in the allegedly enlightened society of the twenty-first century as well.

7.5 The Production of Knowledge That Is Subservient to Life and the Problem of Guiding the Scientific Process

Science, together with Hollywood, has taken over the guiding role of the formation of myths from the churches. But science also produces the raw material for political action: knowledge, insight, new discoveries, and the possibilities of technologically

changing the world. This has to be governed by politics and will actually be governed. Politics, by providing and directing funds and through legislation, can vitally influence the direction of science. If politicians of science, together with scientists, think that, for instance, clarifying the genetics of organisms is the most important task of the future, then money, and as a consequence, work and allocation of funds will go down that stream. Whether it is a promising field of research and whether envisioned strategies will be fruitful will only be known after a while. It is part of the research process that the outcome cannot be predicted. But what can be planned is the direction into which research is to go. For instance, the clear knowledge of how matter is composed is due to the fact that, among others, during the time of the Second World War scientists on both sides of the front discovered that splitting the atom would provide enormous amounts of energy that could then be used for war. If that had not been a prediction of atomic theory, it is quite doubtful that so much money and human scientific labor would have been invested in that field. As a consequence, science has followed that direction and gone into the detailed exploration of the composition of matter. The outcome and the findings during that process and its consequences were, in part, quite surprising and not always predictable.

We should allow ourselves a thought experiment and think what would have happened if similar resources had gone into researching consciousness: its capacities and limits, the importance of exceptional states of consciousness and spiritual experiences, and how consciousness could be used. We would possibly not then have an atomic bomb today. No nuclear power stations. No superglue. No spacecraft, no non-stick frying pans, no LEDs. But perhaps we would have a better social network, a more peaceful world, and other attainments we don't even dare to dream of.

This thought experiment is not meant to feed nostalgia, and should not be taken as animosity against science. History went its way and this is neither good nor bad. But the thought experiment shows that the direction of science is not a necessity, but a process that is caused and steered by humans (Latour 1999; Collins and Pinch 1993). Therefore we can also influence it. It is hardly possible to imagine what would happen if our Minister for Science and staff of administrators would operate out of such intuitive sources. It is hardly imaginable what would happen if our scientists, the spearhead of our societal intelligence, would not only use their rational powers for work but would also be able to be inspired by that deeper contact with reality that would stem from spiritual practice.⁴ Possibly we would then not follow ways that are only popular because most people have too little imagination to understand their constructive consequences. For instance, we don't know what would have happened if Wundt, Freud, and other fathers of modern psychology had

⁴Incidentally, a lot of them do so, but they don't dare speak about it. What would happen if they did that publicly and openly? There are, of course, groups of scientists and small communities that already do this. In the US, the Institute of Noetic Sciences and the Union of Concerned Scientists are examples; in Europe the Scientific and Medical Network is another example. But all those groups are comparatively fringing and the question is: What would happen if the mainstream operated according to the points mentioned here?

explicitly taken the researching of exceptional states of consciousness into their program. It is difficult to gauge what would happen if the amounts of money that go into researching nanotechnologies and technical applications flowed into researching social binding processes and conflict resolution. There are always, before all research, before all results, a lot of intuitive decisions at the highest levels as to how future research is to be guided and funded. These intuitive decisions are built on previous research experience, but very often they are also influenced by personal interests and the self-interest of those who advise politics, and by the alleged expertise of political interest groups themselves. They are nourished by national interests. They normally come from a pre-scientific and more or less unconscious perception of how the world functions. It is exactly these unreflected predeterminations and presuppositions on how the world operates that actually determines the further progress of science imminently. And it is exactly these pre-decisions that are not submitted to scientific critique and analysis. They cannot be. These are the scientific mythologies that reinforce and direct our actions. At the moment roughly the following mythologies are commonly accepted and determine the progress of further research.

- Our brain is a supercomputer and neurons are little pieces therein. It produces consciousness just as the liver produces bile (Heusser 2013).
- Anything that is real is material or can be derived from matter. The only immaterial reality, mathematical structures, can only be seen in material realization and have no reality of their own. Individuals are the primary reality.
- Society and the whole of reality are derived from the constitution of single elements.

Suppose those who are responsible for the process of science, perhaps even scientists themselves, had, through their own spiritual experience, intuitive access to the basic reality that science wants to explicate in its own way. Then those current scientific mythologies would possibly be questioned. Then perhaps ideas and insights would surface that, had they to wait to be discovered in sequential order would have to wait for perhaps a couple of 100 years. Then we could possibly avoid dead end lanes, less because we know clearly and have experienced that they are a dead end lane as is the case today, but simply because we intuitively assume that a project won't be worthwhile. For me, a good example is the development of nuclear power stations and atomic bombs. It is quite imaginable that a group of directors with the appropriate spiritual experience could have the opinion that this technology should not be followed up on a large scale simply because it is against the principle of holism and joint connectedness. Perhaps then we could also tackle promising future developments because we are intuitively convinced of their general usefulness.

For instance, if we practice therapy and medicine out of a basic spiritual understanding then we would give only partial credit to an understanding that sees the organism as a complicated car and medicine as a kind of mechanical engineering. This view might be useful in acute situations – as in emergency medicine, acute infections or in situations of shock. Otherwise a more holistic concept of therapy

would emerge all by itself and would not have to be talked about endlessly in a lot of conferences, publications and manifestos. Then it would be quite natural that the family physician, when seeing a depression in a patient, would not routinely dole out medication but would probably enquire a little more holistically about their life, potential triggers, relationship situation and family background. And we would naturally have a health system that supports such holistic procedures including the time necessary and would not have to discuss issues around the complete unsustainability of our health care.

We have seen in the last section that spiritual experience contains a component of unity. We have also seen that we only need one precondition to understand that in inner experience there is indeed a certain kind of contact with reality, namely the complementarity between mental and physical processes. In spiritual experience it is as if we were looking at the inner structure of reality; in conventional scientific experience we are looking at the outer structure of reality, matter and its relationships. The difference is obviously that the insight gained by inner experience is that of general structures and values which are important for reality and appraised by consciousness. But they still belong to the make-up of the world, because consciousness itself is an element in this world. The only precondition necessary to make this concept work, and I claim it is a reasonable precondition, is to let go of the reductionist theory of consciousness as completely derivative of matter, and to assume that consciousness is a complementary aspect of reality.⁵ In other words consciousness and matter have to be seen as two elements of reality that cannot be reduced to each other.

If this is accepted, at least for the time being, then we can see that if consciousness is directed inward we can, perhaps even more rapidly and more completely, get in contact with reality as easily as we do through direction of the scientific process towards the outside. Therefore I would assume that spirituality is a complementary way of functioning of our knowledge process. Similar to the way in which consciousness is a complementary appearance of reality compared to matter, I would claim that spirituality is a way of knowledge that complements science. The type of knowledge arrived at is about inner structures: relationships, purpose, meaning, and values. It is also important in those places where science draws on fundamental theoretical structures and concepts.

I have used Pierce's notion of abduction⁶ to characterize this. Induction and deduction are quite well known as the most important types of conclusion that science uses. While induction progresses from the singular to the general, deduction takes the opposite route from a theoretical structure to the single case. However, finding a rich theoretical structure, creatively finding a new theory, is not contained

⁵ See *Understanding Consciousness* (Velmans 2009) for a similar proposal.

⁶ It is important to put aside the conventional connotations of "abduction", such as in criminal cases of abduction or the sci-fi alien abduction. This notion has nothing to do with it and is simply a scientific neo-logism from the Latin "ab-ducere – to lead away from", in juxtaposition of deduction, derived from Latin "de-ducere – to lead down from" and "in-ducere – to lead into somewhere".

in either type of conclusion. This is where Pierce uses the notion of abduction (Fann 1970; Hulswit 2000; Wirth 1996). We could paraphrase and say that abduction is a scientific form of creativity, the access of a scientist to a theoretical structure that he or she finds and “dis”-“covers”. This creative process in science is, in my view, structurally equivalent to the process that leads to insight and knowledge in the enlightenment process. At this point, spirituality and science touch each other, I claim. This touching is so central because a good abduction, or put differently, the finding of a fruitful and far-reaching theoretical structure, is so central to the further progress of science. The scientist who is intelligent enough can develop the experiments out of a given theory and thus the appropriate deductions. He can also discover by the results of empirical operations where those results are in alignment with the theory, i.e. he or she is able to inductively operate correctly. But they are not necessarily in a position to discover good new theories. In fact, the poverty of really good theories in some disciplines can inspire doubt that creativity and abductive paths in science are well taken care of. This is exactly the area where the epistemology of spirituality and the epistemology and practice of science converge. It is important to understand that I am not talking about concrete content. I don’t think that it is as simple as only having to read old scriptures of sages to know how the world works. It is probably more the case that one’s own spiritual contact with reality will liberate exactly those creative forces and insights that are now necessary to create something completely new. Perhaps these are absolutely new insights, have never been presented before, cannot be read in ancient texts, or are not implicitly contained in an already known model. But perhaps spiritual contact with this reality from within will help us to develop the exact theory or model that is now necessary. In short, spirituality can be the place of new insight, and thereby the motor of development in each area.

This would then be the epistemological place of spirituality in a postmodern science. It would be the inspiring, creative fountain, out of which concrete scientific work would be enriched, out of which it could become fruitful and informed, and also corrected. Just as consciousness has a foundationally different function and exhibits different ways in contrast to matter, in the same sense spirituality has a different epistemological function compared with the operation of science. Science explores the relationship of the outer world, of matter and its forces. Spirituality develops the inner structures of the world, theoretical scaffolds, values and meaning.

7.6 The Importance of Values and the Problem of a Lack of Commitment

The postmodern situation has led to a lack of commitment. Most people have understood that it is not possible to safeguard a canon of values outside of the democratic consensus processes. Going back to philosophical, theological, or other ideological structures of foundation is possible, but cannot be universally applied because there

is always somebody who can doubt the basic assumptions that have to be made. After each corner of ideological foundation there lurks always the problem of the final foundation. In this situation we have a few options: We can just fall back on ancient values, i.e. the traditionalist, conservative solution. That works as long as society is comparatively homogenous and can be secluded against the outside world, and as long as such a conservative approach finds a political majority. Today, the cultural campaign that has been foreseen between the Islamic world and the West, for instance if Turkey becomes a member of the European Union, and all the parallel debates on migration, show that such a solution won't hold water for long.

We can find our own fitting ideology and adhere to it as long as we find it useful. If we don't like it we put it to one side and look for a new one; this is the postmodern ethics of repair and spare parts. This might work on a personal level, although also here we would have to ask the question whether it is not this ideological uprooting that actually leads to a lot of personal problems. But in the context of societal values it will be difficult to follow such a strategy.

We can use democratic consensus processes and discuss values ever new whenever it seems important, and strive for political consensus. This is what is necessary in a multicultural society. But where do those who discuss and act in this process draw their foundational values from, that they then want to put into the public discourse? What happens if, suddenly, values are thrown into the debate that are quite obviously not useful, but they have a majority? Let's not forget that such a situation has already prevailed. The Nazi regime was democratically legitimized by a vast majority, although this legitimization was the consequence of a systematic demolition of democratic processes. Is there any exit from this circle of seeming indifference? Is there an alternative to this more or less universal postmodern non-commitment?

I think that the secular non-dogmatic spirituality that I favor here would offer such an exit. It would result in the insight into basic structures that are not indifferent, but whose concrete formulation, interpretation and practical consequences will have to be found ever new. The experience of a basic unity would certainly prohibit maximizing profit as a guiding principle of society and politics. It would discriminate societal and political structures regarding their subservience to life in general. It would give us a basic capacity to discriminate and critique structures of arguments that are untruthful and which seem to be not only tolerable, but necessary in politics. This view does not preclude which ethical principles have to be used in a specific case. There is no cook book mentality regarding ethics following from it, but rather a basic understanding or fundamental ethical principle that would then allow deducing ethically approvable solutions that are ready for consensus in a singular case. One development that can be foreseen would be the shift from individual welfare to common welfare, or a judicious balancing of both. Our common system of economy, education, and society is based upon the principle of a modified individual welfare. Collectively we have understood that emphasizing individual welfare alone is wrong because it leads to individual damage in the end. Therefore we have modified the principle of individual welfare and work in groups and collaborate for a certain time to reach definable goals. Thus, while pupils are

trained to work in teams for a certain time during their studies or in training, at the end when exam time arrives or remuneration is discussed it is individual effort and welfare that plays the main role. If I don't look after myself and see that I get a good mark, then my future chances are worse. If my enterprise doesn't position itself aggressively in the market landscape and try to beat competitors I become bankrupt. If our country won't work to reinforce our position in international meetings that help our own economy, then we won't become a competitor on the global market, and so forth.

We can see clearly where such a stance leads in how international treaties and committees are blocked. We are less ready to accept that a lot of our own actions bear testimony to such an attitude, sanction it, and replicate it. The average, normal consciousness thinks exactly that, namely that we ourselves are the centre of the world and the world turns around us and has to serve our own needs and ideas. The fact that this attitude is then replicated in a lot of societal systems and relationships is not really a surprise. Whoever operates out of an experience of mutual connectedness will perhaps not always have the ideal solution for the individual. He or she will also act in this way in certain societal situations or phases simply because it is necessary. But if a critical mass of people has understood in their depth that individual welfare is impossible without common welfare, even that common welfare or the welfare of others is identical to our own, then structures will change. The basic insight is that the value of the individual, one of the cultural attainments of the western Jewish-Christian culture, can only be guaranteed if it is founded on mutual respect and not on exploiting structures. This insight into the importance of individuality can lead to the situation where only our own individual self is important, and can thus end in individual and collective narcissism. The attempt to bring this narcissism into reality is what destroys those foundations that support the importance of the individual in the end. We can only eschew these dialectics by balancing the importance of individuality and the resulting individualism by a complementary principle of connectedness that is easily provided by the experience of connectedness and whose enactment is quite naturally a consequence of that experience.

Balancing the principle of individuality with an attitude that is nourished by an experience of mutual connectedness will solve a couple of problems on the side as we go along: the instability of social and intimate relationships. In general, the lack in the relationships of many people in our time could likely be halted. If I understand in depth that my individual welfare is identical with the welfare of others, and that those others, or, in the Christian sense, my neighbors, are exactly those that my life has put me in relationship with, then I cannot walk out of that responsibility. As a consequence, the easy breaking up of relationships, unempathic reactions or the refusal of help won't be viable alternatives because they also harm me in the long run, which I want to prevent.

One could now say, coming from a fundamentalist or conservative quarter: "Exactly. This is also how we see it. However what you say is unnecessarily complicated. One has only to listen to the teachings of...the Bible...the Quran...the Teachings of Buddha...the Book of Mormon...of the Jehovah's Witnesses...of XYZ guru..., and we will find the very same teachings and the very same results.

One can leave this very complicated looking around, meditating, and practicing, aside. It is only important to have the results, as you say. Thus you only have to follow our movement and advertise us.” This form of argument engenders a problem. Many easy situations will be covered well by it. But in some singular cases there will be dissent. The temptation to give up responsibility and to take ourselves out of the cumbersome practice of personal responsibility and to float into the secure haven of ideology is huge. But this would not be a stance that is committed to enlightenment. Nor would it be a solution, since the fight, or war, for competition is simply transported to the ideological level. Those who live within the system can be happy within it. But then the fight is carried out at the fringes between systems. If we are not dealing with the divide in ourselves we are producing it, no matter where we are.

7.7 The Problem of Division and the Unity of the World

This leads us to the most important and the most difficult argument for the inescapability of the position I am arguing for here. I want to be open. I feel some trepidation when approaching this topic. But since no one seems to tackle it, I will try nevertheless.

At the fundament of each religion, and of science for that matter, the intuition of the unity of the world is at work, a unity that comprises even the duality of good and evil. This can be verified without doubt in Buddhism. But it is also the basic reality of the Jewish and Christian traditions, even though a lot of people, even those with some theological background, would probably doubt that statement. I mentioned this already in the initial chapter: The myth of creation in Genesis, the first book of Moses, talks about “God saw that everything was good that He has made”. In Isaiah we can read “I form the light, and create darkness: I make peace, and create evil: I the Lord do all these [things]”. In the Septuagint, the Old Greek translation of the Hebrew Torah, we can read even more clearly “I am the one who wants evil (kaka ktizon)”.⁷ Even though we don’t find explicit formulations in the New Testament, we can find a lot of words and metaphors of Jesus in the Gospels where he is pretty clear about the fact that nothing will be excluded or fall out of the context of being except what excludes itself, and even this will have the principal opportunity to return home. One can see this in the metaphor for instance of the Good Shepherd and also where Jesus is asked by his disciples to be clear about discernment between good and evil, true and false. Here he relates the metaphor of the farmer who sows out and then also lets the weeds grow in order to not damage the crop. “Let both grow together until the harvest”.⁸ We can also see this in the Sermon on the Mount with a lot of preaching on how to deal with injustice, with enemies, and with fighting.

⁷ Isaiah 45.7; all English texts according to King James Bible.

⁸ Mat 13:30.

This does not mean that there is nothing that is wrong, that there are no evil actions, that a murderer has to be treated equal to a benefactor, or that actions would be morally or ethically indifferent no matter what you do. This is certainly not the case. The experience of mutual connectivity, especially, teaches us that we have to have guidelines with which we class and distinguish actions so that we can be clear about what is helpful and what is damaging to life. But there is a difference between distinguishing between actions of people and between concepts and ideas. And whether we ascribe qualifications such as “bad”, “evil”, “unworthy” to people, groups, or even nations. Nothing is more difficult than to be confronted with someone who does injustice to us or to others and to not identify this person with the injustice done. Nothing is more difficult than to be clear about the discernment and still be in consonance with basic unity.

We are used to thinking in the categories of logic and of the excluded third, and in most cases this is good. In this sense it is also correct if we classify an action clearly and say it is unjust when it is unjust or vice versa. However, when we are dealing with the “Whole” then this doesn’t work any longer. Then we have to be able to think inclusively. Here it is perhaps helpful to use complementarity as a type of heuristics, as previously mentioned. As long as we have to think linearly, there is only “either/or”. Then others who have a different opinion or who might argue or not share my ideas become those who have to be excluded or, in special cases, even eliminated. The hidden mechanics of the universe, however, seems to work in a way that everything that is excluded and driven away, even everything that is seemingly extinguished, comes back until it is integrated.

We can see that most easily in the area of the psychological, because we all have some experience in this area. Everybody knows the experience of having something in our lives that is not really running smoothly. That could be a personality trait that we dislike in ourselves or others. This can also be a person who makes our life difficult or certain types of people who all have the same attitude or trait. We can now try to exclude those from our lives, perhaps by ignoring the people or fighting the trait. However this won’t work in most cases. At some point in life the topic which was excluded returns in different clothing. Often, multiple broken relationships and attempts to build new relationships are due to this structure. We may find an intimate relationship that is completely fulfilling. We think we have found our partner for life. We open ourselves up, trust and show even those sides of ourselves that are not so nice and bright, and are happy to be accepted and loved as we are. At some point the first strain of disharmony will come into play. Often this has to do with our touchiness. Perhaps our partner will act in a way that isn’t quite empathic, or does something that is painful and we react, hurt. We might react with harsh words or hurt the other ourselves. Suddenly we see a dangerous spiral starting that often results in the breakup of the relationship or in living together without further communication. If everything goes wrong we might then start looking for another partner, expecting everything to be different in the new relationship. All going well, this might work. This can happen if we have learned from our earlier disaster, but more often than not the same problems arise in a different guise. Perhaps they don’t emerge in our relationships with our partner, but with our children, in our

professional life or elsewhere. It is an old wisdom of life which we can see without psychology, but psychology can be helpful in understanding that unsolved problems and topics will return until we address them. In this sense, our personal experiences in life are a little laboratory of how the world as a whole functions.

The Christian era during the Middle Ages started the Crusades war over Jerusalem, the place which is holy to all three monotheistic religions. Historically speaking it is still an unsolved problem. It is obvious that the problem cannot be solved by killing and excluding others who have a right to participate. Neither a purely Jewish, a purely Islamic, nor a purely Christian dominated solution will create stability long-term. The fighting is always intended to dominate another and is obviously the wrong means. We don't need much argument to see this. I don't have a solution but I'm using this as an example for the plausibility of my statement that division and exclusion is not a reasonable strategy. Consciousness that is nourished by mutual connectivity will therefore not be part of a concept or a solution that favors such strategies of exclusion or division. There are some resolutions and proposals that suggest, for instance, putting Jerusalem under United Nations administration, but it is currently unlikely that such a concept would really be a constructive solution. Thus the problem returns with ever greater urgency and charges its toll in blood until we have solved it.

This political example can teach us that fighting, be it true or false, good or evil, in short the support of only one side of an antithesis, cannot be the solution here. It will likely require an inclusive structure to resolve this antithesis on a different plane, perhaps in the sense of Hegelian logic. This is not to say – and this is different to any idealistic philosophy – that this will reduce or solve the oppositions. Perhaps it is the case that the basic structure of the world should contain opposites without resolving or reducing them, keeping them as necessary aspects of one true reality. Figuratively speaking, devils and gods, evil and good spirits, all belong to the same reality. They are part of the final reality and both seem to have an important function. It is as if out of the dynamics, poles of development grow, and the problem is not that they are opposite poles, but our incapacity to deal with them, to hold them, and to integrate them.

We wish for a nice, happy world in which there are no evil people or deeds. Therefore the big myths are very fashionable, starting with the good old Western movie in which all the evil guys will end up on the rope with the lonely hero riding west for further action, and ending with "The Lord of the Rings" where evil is finally dominated. We think that if we expel the evil ones from the world only the good will remain and everything will be nice and bright with instant sunshine. Obviously it is exactly this stance that creates the problem in the first place. Somehow, whatever is excluded returns. Somehow, what has been dominated over is revived until we have found a good integrative solution. In this integrative solution both the devil and the archangel Michael have to be able to sit together and share a pint of beer knowing that they are both part of the whole reality, figuratively speaking.

This process starts with and in us. By seeing our dark sides, accepting them and integrating them in our lives we prevent the externalization of evil. One who knows his or her own destructive, even murderous tendencies, and acknowledges

them - even if it's very difficult to accept them - is less in danger of fighting on the outside what is inside. If we do this collectively, then the motive and the motor for externalization of destructive tendencies is halted. In order to promote this process it seems important to me to promote a secular, fundamental spirituality which, following a regular practice of inner growth, cannot but, in a spirit of mindfulness, see our own tendencies to destruction and accept them as belonging to ourselves. This, in my view, is the only constructive way to break the eternal circle of injustice and atonement for pain.

We can illustrate this with a psychological example: We know from our own experience and from systematic empirical research that violence and injustice has a tendency to continue throughout the life of one who has suffered them as a child. Violent perpetrators are frequently people who have been neglected as children or who have suffered extreme violence themselves. Victims become perpetrators and perpetrators are victims. This is not always necessarily true, thankfully, but it is often so. One who can name the pain and injustice that he or she has suffered with full awareness and, more importantly, who can forgive, will become free of it him/herself and is not likely to become a perpetrator and will also understand his/her tendencies to do this. To understand those structures it is not necessary to be a spiritual person. Good psychotherapy might suffice. What psychotherapy cannot do by definition is make the step to reach forgiveness. This is a genuinely spiritual act. Apart from that, in many cases the situation won't lead to psychotherapy but will still be serious enough. Here, spirituality is a good choice to aid in discovering one's own automatic patterns of behavior. Also, more and more psychotherapists are reaching the understanding that the integration of spirituality into their psychotherapeutic actions multiplies their therapeutic potency. Even though there is no systematic empirical research, the tendency to integrate spirituality into practice is an important hint that this might be not merely useful, but even necessary.⁹

The next and perhaps final task that humanity has to face is probably the integration of what has been excluded or allegedly has to be excluded, namely evil. Such an integration can only happen on a personal level, then it will follow on the societal and universal level provided we can reach a critical mass. It should be obvious that this task, if we accept it to be a task, cannot be solved by intellectual academic means only. Our institutions for education, starting from school up to higher education or further education and continuous education, are not fit for that purpose and most are not even clear about what has to be achieved in this respect. The cultural capacity of religious institutions, whose task it would be to provide a place for this integration, is dwindling. This would actually be the original place even though, in my view, traditionally there has been less of an integration than of condemning and fighting. There have been rituals, for instance, of acknowledging and naming evil,

⁹These are some of the findings discovered in a PhD thesis by Liane Hoffman, who found that two-thirds of a random sample of German psychotherapists find this topic important, and roughly the same number report their own spiritual experiences. At the same time, the number of training programs and the way in which therapists see themselves show that a lot of them integrate spirituality into their practice (Hofmann and Walach 2011).

such as in the confessional rites of the Catholic Church or in the chapter assemblies of the monastic orders in which people confessed openly and begged for forgiveness.

All these cultural strategies more or less presuppose that condemning and pushing that which is unwanted out of the area of human culture towards the fringes will remove it. They are all lagging far behind what Jesus of the New Testament actually taught. Apart from that, these rituals are only available and attractive for very few people in our present day lives. New options that bring such a task into the consciousness of humanity and which produce the according competencies are required. This would result in an education of souls in addition to the education of mind and of the intellect.

Such an education of the inner person would be amenable through regular spiritual practice. This would allow instilling the necessary competencies through daily practice. It is less about what has to be brought into people, through doctrine or teaching, than about what we have to awaken in them to bring out and perfect what is already in them. The Jesus of the New Testament says at one time where he is talking about the definition of what is pure and impure that not what enters man makes him pure or impure, but what comes out of him. Out of man himself foul thoughts such as greed, envy, and so forth, arise. In the same sense we cannot fight what arises from the heart through doctrine and teaching in the head, figuratively speaking. The education of the soul, or the heart, has to happen in other forms. It is not through books or doctrines, but through systematically practiced silence. For it is here that the demons arise, such as wounded pride which we would like to fight in the outside world through action. If we stop and allow those who insult us to speak so that we can actually hear their spitting and shouting without reacting immediately, if we can stand their noise in silence and simply take note of them and see that we are wounded and nourish all sorts of fantasies in our chest, from killing the perpetrator to the most subtle forms of imperceptible revenge such as distancing, reputation ruining, or diminishing participation, then our whole way of acting will change. Slowly but surely. It is only during silence that we can listen to our own inner voices before they become impulses, before they change into actions and before those actions become structures.

This is why I think that only systematically practiced and widely accepted spirituality will have the chance to produce an education of the soul and of the heart in a very broad sense, which we will need if we want to stop those ever-present tendencies to divide in ourselves and around us. If we don't, the consequences will be obvious: All those areas of reality that we have pushed outside the limits of what we think is real and which we refuse to participate in and be a part of will return back on us, raise their nasty voices and claim their share until we hear. The question is whether it won't be too late then. My call would be to not wait until then and not await the outcome of this final experiment because it will be an experiment that could cost our culture, if not the whole world, but to integrate spirituality in the way it is described here.

This could start with a culture of consciousness and practice of spirituality in different areas. It goes without saying, of course, that everybody would have to be

able to decide within their own responsibility whether they want to do this or not. The freedom to say no to this culture of consciousness is also part of it. Potentially, science would have to be the first societal institution to tackle this issue. I have tried to show that, historically speaking and systematically, this would be a natural consequence. For if we knew about the consequences and the potential benefits of spirituality, and even about its potential downsides, then it would be easier for us to plan in large dimensions. For instance, if there were to be health benefits for people who have a regular spiritual practice, which is something that at this point the results of current research seem to show, then it might be actually useful to integrate some bonus system into our healthcare that would reward regular spiritual practice. Such processes could influence our culture at large. Since religion has become less and less a promoter of collection and spirituality and more and more a protagonist of doctrine, this cultural place can be taken up anew, systemically speaking. At the moment it is unsystematically occupied by all sorts of cults and postmodern theses of private religions.

If science, as it is its societal task, were to follow the question of whether spirituality and a culture of consciousness could contribute to knowledge and an improvement of life, then we would have a first fundamental and non-dogmatic leverage.

At some point religion could still start to come in to discover its own calling to spirituality, contribute to a culture of consciousness, and then produce new religious offers of different kinds. This would not be a problem. On the contrary. Then spirituality could be anchored in our culture in its own right. Then it could be possible that, for instance, in education, be it in schools or in teacher training, such competencies could be transmitted. Who knows what children who start to discover the value of collecting their mental powers and turn inwards early in life could do? Perhaps they would be even more resistant to the stupidity coming from our grown up world as they are naturally already resilient against it. Potentially they could be even less open to ideological temptation. Perhaps it would be easier to teach and interest them. Maybe they would learn more quickly than they can currently learn. Perhaps there would be less problems motivating pupils than seems to be the case at the moment. More importantly, perhaps, there would be less teachers that are ineffective because they are overloaded and hence act inappropriately. Perhaps teachers would be in a position to regenerate more quickly and find creative solutions for difficult situations that at the moment result in arguments between pupils and teachers.

We don't have to be prophets in order to understand where a global culture of consciousness could lead us and what potentials it might provide. To be quite sure, I emphasize once more: Such a culture does not have to be bought at the cost of anything else that is important or dear to us. It would only create an impulse that requires reflecting on what we find worthwhile every now and then. This could indeed result in something that for a long time seemed to be essential to us being now identified as superfluous and being left behind. What the result would be cannot be predicted. I think that we should start taking this topic up and stop the division that has been part of our global culture since the French Revolution, perhaps

even for longer, which made religion a private issue and drove it to the fringes of societal reality. This does not result, and I emphasize this once more, in a backward directed reinstalling of religious factors of power. Quite the contrary. The process of secularization cannot be stopped, nor would it be desirable to stop it. But it would provide the space for a process of respiritualizing our world, our everyday life, and the whole living reality. Whether this will result in a revitalization of known religions, their marginalization, or disillusion with religion is then of less importance. Only if we can dissolve this final and deepest division, it seems, have we a chance to survive, culturally speaking. And as I said: The tricky thing is, we cannot wait for an empirical proof of this claim because we might not have the time to wait for it.

7.8 Dogmatic Abstinence in Order To Serve Life

Meanwhile it should be implicitly clear what I mean by “secular”, “non-dogmatic” and “fundamental”. All these adjectives denote a habit that abstains from becoming party to any religion or power. This habit sees spirituality as a common human need, even necessity, that cannot be owned by a particular ideological group. How such spirituality will be personally embedded, whether it results in religious bonds or not, how this spirituality will unfold, will have to remain an individual’s free decision. It will be influenced by a lot of cultural and personal situations. Those who decide in favor of a religious community will do this ideally out of an inner calling or necessity, and then find their decision personally evident and right. This is the only way a grown-up type of religiosity can be possible in a multicultural world. If we have the experience or intuition of mutual connectivity we will respect the choice of others who are in a similar situation, have taken completely different decisions, or who live in different religious communities, and we will not be able to refuse them participation in life or truth.

Spirituality and the way it is sketched here can only work in a postmodern and enlightened world if it abstains from indoctrination and proselytizing. We know that only a dogmatic vessel, i.e. some interpretative frame, will allow an experience to unfold. But a secular, fundamental and non-dogmatic spirituality will know the historical relativity of those dogmatic vessels, and it will leave aside aggressive types of proselytizing. This now refers mainly to spirituality in societal discourse and in the public debate, not necessarily in private lives. There, some commitment to community living, group and its language rituals and images will be necessary for a spirituality to survive. This means that on a personal level religious commitment will enter the stage automatically. But with an important difference: Here the dialogue will be led on the basis of spiritual experience and not on the basis of doctrinal concepts. This will also help to further the development of teaching, or rather, the new interpretation of the dogma.

For if we assume that reality is one then we also have to accept that different religions that are dealing with a deeper dimension of this reality will have found their own perspectives and emphases in this spiritual journey through the world.

Whether these overlap, are mutually exclusive, or complement each other is quite another matter. In the end, cultural competition will show which system will be most useful, or perhaps there will be different systems depending on the cultural and historical situation. Through the insight into the historical and factual contingency of religious systems, and through the knowledge that the final reality cannot be exposed in propositional structures or teachings anyway, we are actually safe and protected from intellectual chauvinism and religious lamenting. It will be simply a matter of pragmatics whether a religion that builds on the systems of faith and dogma or on mobilizing one's own spiritual experience, or a healthy mix of both, will be better long term. We will see whether appeal to faith is sufficient, as the Catholic teaching seems to favor at the moment. I suppose also that in these areas psychospiritual evolution will progress and structures that are not fit for life will die out.

Spirituality can and will have to be part of public, even scientific discourse. But it can only be part of this in its pragmatic aspects. It will not be part of that discourse in its dogmatic aspects, because otherwise polarizations and divisions will result, whose bridging is the genuine desire of spirituality. In this sense, "secular," "fundamental" and "non-dogmatic" does not mean a specific teaching, a specific confession, or a specific form or direction, although at the same time it has to be clear that there will always be some such commitment in individual cases and that this is even necessary.

An important aspect of the enlightenment was to free mankind from stubbornness, from dependency and ideological slavery. Science and a society founded on scientific impulses have achieved a lot of this. What the next step will be is, in my view, also the freeing from a monopoly of a certain kind of rationality and doctrine, even from the monopoly of the rationality that has arisen out of enlightenment itself. This can be achieved by a consequent turning inwards through spirituality and regular spiritual practice. For this liberation to be consequential and not turn back on itself it has to abstain from a commitment to a certain type of teaching or doctrine, else it will revoke its own roots.

This then might actually be the intermediate goal of enlightenment, namely to become superfluous itself. To continue reflecting on the means that are applied to achieve it and to prevent enlightenment deteriorating into what it has started out to fight against, namely one ideology among others, in its fight for prominence. Then it would have really served life by installing a process that will ever question, even destroy as a consequence, the crystallization of experience into a certain type of teaching in the service for life. "If you meet Buddha on your way, kill him" is an important Zen koan that condenses this reality.

After the three closest disciples who had been taken up to Mount Tabor by Jesus had seen his true nature, that is, had their own true deep experience, they wanted to stay there and build houses. Peter offered to build three huts. Not for himself, but for the others, for Moses, Elijah and Jesus. "It is good to be here" he said. And it would really be nice to be able to stay there, build houses and to actually condense and solidify the experience and help others. Everything would be much easier and clearer. In fact, we have those houses in all types of preaching and teaching. Nevertheless, the Peter of the experience on Mount Tabor did not have the permission

to hold on to this experience, to build a house around it and to remain there. He had to descend, he even received a prohibition to preach and talk about the experience. Nobody should hear about the experience and know about this reality through others, even from firsthand experience, as it could prevent his or her own experience.

We read in St. John that before his Passion Jesus washed the feet of his disciples. This was an act that was normally a slave's duty. Even more, Jesus called on his disciples to take this as an example. This meant he placed himself outside of the normally valid conventions and hierarchies. It is as if he had killed himself as a boss, a leader and a teacher, which was enacted afterwards in cruel clarity and fact. He reduced teaching and preaching and the office related to it to mere reality of practice. Thus even in the beginnings of Christian preaching we can find a mechanism to its own revision in order to prevent misunderstanding and an abuse of power and office. Religions normally contain mechanisms to protect themselves against calcification and to help against the obfuscation of experience, which can happen very easily when doctrine is fixed through second hand experiences. In that respect, what I call "secular", "fundamental" and "non-dogmatic" spirituality is not a novel invention of mine, but only an emphasis on what should actually be self evident, but seems to have been forgotten. Self evidence however becomes societal necessity which has to be emphasized ever anew when we fall into the danger of forgetting it. In this sense, secular, nondogmatic spirituality is a counter movement against doctrinal preaching and a potential way back to the sources of each and every religion.

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