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SUSTAINABLE LEADERSHIP

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Sustainable Leadership
- Leadership from the Heart
By Steen Hildebrandt and Michael Stubberup

This book is dedicated to the next generation who will continue the paradigm shift already in process – here represented by Minna, Andreas, Martin, and Matias

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Preface

The present book is a result of a long-standing cooperative project, focusing on the subjects of sustainable leadership and leadership from the heart. It is our hope that this book will inspire you to reflect on your life and central issues in your existence and in this context consider your own practice as a leader, co-worker, citizen, etc. In our roles as citizens, leaders, researchers, etc. we have, during the course of time studied, been subjected to, and practiced leadership. We continually attempt to understand the development of the world at large in terms of population, economy, corporations, and leadership, and a number of other phenomena and tendencies. On the basis of this commitment, and our studies and experiences, we would like to establish that:

- In countless ways, the world has seen positive and significant developments, for instance in the areas of health, education, and research. This is also the case in our own country, Denmark, where, according to our own standards as well as those of many other countries, we have achieved considerable developmental results.

- We see that change and leadership are possible, locally as well as globally. Through a conscious leadership effort it is possible to influence and change corporations, societies, and the globe. Regardless of what you might think of COP15, the Copenhagen climate conference, it was an example of global leadership.

- The planet's life systems, countries, and people are suffering. We are extremely concerned by much of what we see – in our own local environment as well as elsewhere in the world. The field of leadership needs to find

inspiration in new thought processes. There is a need for a major new leadership commitment and our book addresses this issue.

• We see sustainability as part of a comprehensive paradigm shift which in the years to come will become still more defined.

It is our belief that change is possible, and we are convinced that some of the insights, models, and experiences, which this book propones, can contribute to global change. Our point of departure is primarily a positive and confident view of the world and its opportunities, but we also have a conviction that there are urgent leadership tasks and new departures on the horizon. Hence change is necessary. We all have influence, and direct as well as shared responsibilities. Occasionally we state that knowledge entails obligations and we derive pleasure from the opportunity to present this insight and the many illustrative models directly to you.

We work in the field of leadership and cooperation and focus on the development of people and corporations on a general as well as a specific level. In this process we address anyone interested in leadership as well as in the development of companies and institutions.

This book is located in the interface between on the one hand management and organizational research and on the other research in modern neuroscience and psychology. From this position we attempt to encourage the leadership sector to adopt an introspective mode on an individual basis. This will be an important alternative to the concept of human beings as controlled by external factors, which has characterized much management research so far. We also wish to combine the individual internal orientation with a global perspective of sustainable leadership.

Hopefully the result will be a more composite, but also more realistic and progressive image of the leader and leadership tasks in the corporations and societies of the future.

The company is central to our concerns. Corporate sustainability is crucial, but in our book this sustainability manifests itself as a function of our views on human beings and nature. The result is three close-knit aspects of sustainability whose focal points are people, companies, and the world as a whole. In the context of our focus on company leadership, these three aspects translate to a discussion of three levels of sustainability: the individual, the corporate, and the societal.

We do not pretend to have simple solutions or answers. We have many questions and challenges which we attempt to address and specify. To the best of our ability, we will try to mediate these questions, challenges, frames of reference, models, and experiences to you. We have a humble attitude to the complexity and difficulty of the task, and we hope that you, dear reader, will reflect on the text. You are most welcome to give us feedback on our mail addresses, which you find at the end of the book.

Aarhus, May 2012

Steen Hildebrandt and Michael Stubberup

The Necessary Change

This book is published in a decade which we imagine will be characterized by sustainability. As a society we are in the first phases of a transformation which will result in many constructive and necessary changes that will have positive effects on the human race, all other living creatures, and nature. Sustainable leadership is a part of this transformation. Hence the book also explores the concepts that replace the industrial society as well as the transformative process, which we consider a viable, but also necessary pathway towards a new and more sustainable society. Over time, this process will manifest itself as a comprehensive paradigm shift.

In the book we apply a number of concepts, some of them from the field of management, but you will not encounter repetitions of basic antiquated management models. The book directly addresses the individual, responsible and reflective human being as a crucial factor in the understanding and implementation of the desired as well as the necessary changes. This type of person – be it a leader, a co-worker, a consumer or a citizen – would take action from the heart and not just on the basis of short-term, rational thinking. The solutions of the future will be created by resourceful human beings, if we dare to see and sense the problems and are prepared to take on the challenges. In the process of working with these changes, new thoughts, attitudes, and social understanding should be applied, and innovative ways of managing and cooperating should be implemented. It is our contention that these solutions are available and that, given motivation, we can find ways and means to apply them.

The Necessary Change and New Opportunities

The necessary change requires that respect for life and the processes of life should be at the top of the agenda, and hence contribute to the creation of an increasingly sustainable society. This contention means that we, as human beings, must improve our ability to listen to the signals of the processes of life. We specifically need to improve our understanding of information about the state of the globe. Moreover, we should also listen to the individual experiences of people in our own so-called modern world, as well as in the poorest parts of the developing world such as Africa. These processes all begin at home, involving every one of us, including the first person singular. In our context, the most significant necessary change will be the shift from an external to an internal orientation, where the individual's ability to read his or her surroundings is consolidated in the self. This means improving our ability to listen to the signals that we more or less consciously apply to find our bearings, i.e. our body language, our emotions, and our thoughts whose cumulative messages tell us what goes on inside us and in the social space, in which we act. This is the way living systems sense themselves – by listening to the feedback from within the system and from the environment. By becoming aware of these messages, we can improve our listening skills and thereby our respect for what we might call the voices of life – i.e. my own voice and the voice of the environment.

The international community already has a high level of knowledge about life and health in many contexts. These knowledge banks are often based in universities and organizations. However, we do not apply this knowledge well enough or, to put it bluntly, we ignore way too much of this knowledge – not because we are unaware of it, because it is spelt out to us in manifold ways, but because we persist

in making solutions which ignore the voices of our vital processes. This is an untenable position. It is not beneficial to human beings and nature, in fact it is detrimental to us and to the environment.

Many of the planet's vital processes are unbalanced and lack a sustainable perspective. One of the most important historical reasons and explanations is the fact that in modern society money talks. In fact money is more often than not one of the most significant priority parameters and objectives. When living processes are measured with a quantitative parameter such as money, then the awareness of the qualitative processes of life is diminished, hidden or eliminated. We quite simply do not pay sufficient attention to signals concerning balance and imbalance transmitted from the living system. For this reason we human beings and society in general also lack the ability to recognize this type of information in ourselves and in our environment. In many cases the consequences are disastrous.

Hence respect for life must come first, especially in the contexts of the life of the child in primary school, life in nature, in the forests, and in the oceans – in short all living things. Furthermore, skills in the fields of economizing and accumulating values and energy are crucial and necessary qualities. In this context it is moreover interesting to note the fact that much research and numerous analyses demonstrate that already now under the present circumstances it will pay off to introduce sustainable principles in modern corporations.

We must develop a serious approach to the fact that emotions, thoughts, assessments, and decisions originate in the mind, and as such are firmly based in human beings. We sense, experience, and act on the basis of internal processes, but which criteria constitute the basis of these processes and how does the internal "control system", which we all have, function? Moreover, we need to take a closer look at the ways

in which the organic and sustainable mechanisms of our living organisms are optimized and explicated. Otto Scharmer calls this process going from *ego-system-awareness* to *eco-system-awareness*. These are some of the questions which are at the heart of this book.

In order to lead other people, we should be able to lead ourselves. This means that we should have an internal compass, a distillation of accumulated experiences; in short, values which translate to a sense of direction. One of the most important issues in a changeable world is how to become more attentive. We should also focus on becoming better at listening to, and learning from, the experiences of the past and using the resulting knowledge to open up future creative potential. If we as a responsible society and accountable individuals aim at improving our ability to develop the talents and potentials each and every one of us possess, if we, so to speak, want to become leaders in our own lives and from this perspective build sustainable communities, then it is vital that we become better at recognizing and paying attention to the internal underlying natural processes which constitute the basis of organic life.

Sustainable Leadership – Leadership from the Heart describes a theory and a practice which concern the internal as well as the external aspects of the leadership process. In the book we focus on three levels of sustainability: 1) the individual, 2) the social, and 3) the global. As previously mentioned, a given system is sustainable, when it is balanced. Adjustment and balance are achieved through feedback from internal functions, as well as from the surroundings and the environment.

In human beings the heart is a central factor in the way we organize feedback – for instance the coordination between perception, the autonomous nervous system, and the processing of emotions in the brain. For this reason we address both the issues of sustainable leadership and leadership from

the heart. These are metaphorical formulations which we explore and attempt to specify in the book. We do this for instance by presenting various elements from formative interdisciplinary fields – biology, psychology, sociology, neuro-phenomenology, systems science, and organizational theory, etc. – which, each in their own way, have interesting angles on sustainable organizational processes.

The necessary process of change is already happening. For a number of years we have seen it flourish and begin to take shape in many locations. Now it has arrived, or perhaps we should say that given the imminent necessary changes which the western countries in particular need to embrace, we can detect tentative beginnings, which on a long term perspective will become a fully fledged paradigm shift. Basically, the book is characterized by a positive and trusting attitude to the world and the opportunities it offers, but we are also convinced that leadership tasks and new departures urgently require our attention. Hence change is necessary.

Fortunately, more and more people are beginning to sense that the mounting sustainability crises are interconnected – symptoms of a larger global system that is out of balance. As soon as people understand this, their view of the problems shifts. They start to see the extraordinary opportunities for innovation that can occur when we abandon fearful, reactive mentalities. They start to realize the deep problems we face today are not a result of bad luck or a greedy few. They are the result of a way of thinking whose time has passed.

This perspective is formulated by the MIT Professor Peter Senge in the book *The Necessary Revolution*. We know full well that certain issues are connected. The actions taken by the

company, events in the kindergarten, our consumer choices, various political decisions – all these create certain conditioned responses. Still we continue to behave in ways which imply that individuals as well as large systems are unbalanced. It is not just human nature and natural systems that are to blame. It is our thoughts and attitudes, emotions, and assessments – or in Peter Senge's concise formulation: *the mind-set of the past*. In this book we attempt to foster and formulate a new mind-set.

Sustainable leadership is a question of disposition, mentality or attitude. A development towards a more sustainable leadership and a more sustainable world involves a change of mind-set. Any type of leadership is based on a way of thinking or an attitude, i.e. thoughts and feelings about people and the world. The time-honored word *mind-set* is a central concern in this book, which focuses on leadership. Millions of people all over the world know what sustainable leadership is, and many leaders practice sustainable leadership. Scout leaders, company owners, skilled laborers, manufacturers, school principals, shopkeepers – anywhere and everywhere in the world we see sustainable leadership in practice, so we do know what it is. We know what it looks like, and we know how it works. We know it is beneficial to humanity, fauna, and nature and we are aware of the fact that in the long-term perspective it improves our planet's chances of survival.

There is a peculiar side to human nature: I may have lots of knowledge about sustainability and about sustainable leadership, I might be an expert in sustainable leadership, but when it comes to my own practice, my own daily actions, then I might do something totally out of sync with my professional knowledge. Surprisingly, I don't walk my talk. I say one thing and do something else. We know a lot about why and how. We also know much about how to work on these issues, that is if we wish to rectify or change

them, because in the final analysis it is my own concern. I am allowed to have certain knowledge and voice it without necessarily practicing it. I am permitted to say that exercise is healthy and still remain seated in my easy chair. I might be in a situation where I am aware of the significance of exercise and sustainable leadership and would like to practice it. This means that part of me wants to, but in terms of my daily practice, something goes wrong, some mechanism fails, and I see myself making other choices than those I know to be the right ones and which I had originally opted for. It doesn't look particularly sensible or nice, but that is part and parcel of what human nature is like. This book is addressed to those who want to know more about management and sustainable leadership and about how we can work to change our views on leadership and its practice.

The book attempts to position itself in the interface between mind-set and practice, between insight and will, between intellect and emotion, between thought and action. This is a book about leadership, but it is just as much a book about leaders, and not just in their capacities as leaders or co-workers. Leaders are people too and that means addressing aspects related to mentality, thoughts, emotions, dreams, intentions, insights, and actions. It is not an ordinary book about leadership in the sense that a given person, a reader, and/or a leader would have an arm's length relationship to the book. On the contrary, it is a book that invites the leader to participate in person. If leadership must undergo a change, people have to follow suit. If people want to change, they have to look at themselves and work with their issues. Many leaders do so already. They realize that leadership to a great extent is about themselves and their own personal development. In this sense the book contributes to the discussion of a phenomenon and processes already in progress.

One cannot practice sustainable, authentic, and meaningful leadership unless it is grounded in a profound anchorage in the self. The sustainable, the authentic, and the meaningful emerge from an inner clarity, an awareness of what is important – important to me, important in my life, and sufficiently important for to me to assume a shared responsibility for a process. Sustainable leadership is generated by our ability to read emotions as sounding boards for dreams, intentions, desires, decisions, and actions. The book combines management theory, theory and concepts related to people, including suggestions as to how we can work with ourselves and our self-understanding and development – as human beings and as leaders.

Sustainable Leadership – Our Choice

In this chapter the central themes of the book will be presented and their interdependence will be explored. Departures from old paradigms will be discussed; we shall take a look at the need for holistic thinking and reflect on whether or not we are prisoners of our paradigms. Furthermore, we shall focus on five characteristics of sustainable companies, and the concepts the meaning of life and leadership from the heart will be introduced.

Keywords: holistic thinking, sustainability, living organisms, departures, paradigm shifts, shared responsibility, personal development, spirituality, and leadership.

In this book we wish to interpret some aspects of the society and the mind-set which will replace the industrial society. Moreover we would like to formulate some social insights and methods that can help us develop the societies and the companies of the future. In the heading we use the expression "our choice" with reference to the title of Al Gore's book. We do so in order to emphasize the belief in and the assessment of the fact that the individual human being and all of humanity have the opportunity to make decisions that will guide the entire world in a still more sustainable direction. It is our choice. To a great extent the

problems of the planet, the companies, and the individual are man-made. This does not necessarily entail that they can also be dealt with or solved by human beings. Some processes or chains of events are irreversible in the sense that re-establishment, healing, recovery or solutions are not possible. We must accept that. However, many of the man-made problems can be worked out. But these problems cannot be described and solved with the thinking and the behavior which generated them. There is a need for new thought processes.

From a Belligerent to a Holistic Mind-set

A basic change in the way human beings think, actually a change in the understanding that the earth is round and not flat, inaugurated the Age of Exploration. This term describing the sixteenth century was coined by the American business researcher and writer Joseph H. Bragdon. The simple change of giving life and living assets priority over monetary funds in the value statement of a company will, according to Bragdon, one of our inspirational sources, create an equivalent number of progressive opportunities for society and the world. We agree with Bragdon's and Al Gore's arguments that the ways in which the values and the value creation (profit) are computed and calculated are extremely inadequate. A sustainable leadership must inevitably be based on other ways of assessing and prioritizing values and costs. This means that various effects or consequences of the company's activities, like pollution or wear and tear of the environment, which at the moment are not considered to be of any particular value, must necessarily be an item in future cost accounting.

A great deal of management theory and a lot of leadership practice have not been sustainable. Moreover, in a historical

perspective the field of management has to a great extent gleaned its language and imagery from war strategy and military organization. Much leadership has centered on war and war thinking or – in a wider sense – on unhealthy types of competitions. War focuses on identifying and fighting the enemy in order to win by means of getting an overview and managing resources, i.e. people and machines, efficiently. In the industrial age throughout the nineteenth and twentieth centuries many management concepts were adopted from the military world, where comprehensive leadership research was and still is carried out – particularly in the American defense force. A competitive discourse inspired by war focuses on doing battle on several levels. It is centered on conquering nature with technical skills. Nature must be vanquished and exploited. The goals are to fight competitors and win market shares and positions, and to combat the working class and the co-workers. In this scenario the employees are the opponents. In the best of circumstances the individual agent – a country, a municipality or a company – aspires to be independent of others, but is often also antagonizing and fighting other agents. The situation becomes critical and evident when we reach a point where anything that cannot be described as growth is failure. "If we do not grow, we will die," an executive leader recently said, thereby implying that his company constantly strives for material and economic growth – whatever the cost. This philosophy exceeds what we somewhat naively might call healthy competition. It leads to a pace, decisions, proportions, and constructions that are unsustainable. Either you are with us or you side with the terrorists, a recent American President said, exemplifying the war mode, according to which we by means of simple competition and/or war, can solve all the problems in the world – including making peace.

The Holistic Challenge

If we take a closer look, we must admit that the cognitive framework of the industrial age is characterized by a disjunctive, inorganic approach bordering on a negative attitude to life. This stance calls for a comprehensive, healing, and sustainable take on the problems, which in ever more significant ways are the legacy of the entire planet and not just of a minor delimited part of it. An all inclusive focus on the planet will generate a consciousness where the whole person, the whole family, the whole company, and the whole of society become important concepts and viewpoints. This focus represents a dependence mode, a new type of thinking that will replace the previous antagonizing understanding of independence, which we see practiced in innumerable areas and ways. In this context we understand the concept of dependence as the insight that everything in the universe is interdependent, an insight that points to an holistic understanding of companies and communities. However, the holistic view often encounters adversity; more often than not, fewer votes will be forthcoming when you speak in favor of holistic interests or perspectives. Time and again we realize that we are trained to support the opposite approach, to ignore the entirety, and fight for sectional interests, the silo, the profession, the company, the ministry.

Living Organisms

Organizations are vibrant complex unities, living organisms. As opposed to machines, living systems and organisms participate in their own construction in nature, and when they are man-made, human beings assist in the process. Institutions and companies are not just an assembly of individual elements, they are comprehensive totalities

undergoing continual development. When the constituent parts change, the sums follow suit. Goethe was among the first to describe this phenomenon, and in his view we should have one approach to the totality and another to the individual unit. According to Goethe, the totality is a dynamic and beautiful ongoing process. Neither the part, nor the whole exists without the other. The totality comes to life through a constant manifestation of its parts, and the parts exist as an expression or a concretization of the totality.

We visualize a new generation of responsible citizens who in future scenarios will take action from the heart and not make decisions based on short-term, rational perspectives. In this context the heart signifies the center of the human being, identical with the location of meaning and wisdom – or if you like, the location of a sustainable approach to and understanding of the world. In our book we discuss leadership from the heart as part and parcel of an agenda where sustainability and respect for life not only become obvious benchmarks, but also natural requirements and preconditions. In this perspective we apply considerate metaphors and concepts characterized by words like respect, community, and latitude. We discuss these issues in a broad range of contexts from the individual human being, who takes responsibility for his or her actions, the relational processes in a team, the family, and the department to the general goals of the organization, i.e. companies, municipalities, countries, and the planet. We do not believe that the heart is the seat of decisive resolutions nor do we think that the heart performs some functions better than the brain. That is not the purpose or the agenda. The agenda is focused on relations and totality, life and sustainability, human day-to-day existence and work issues, climate and nature. Many people would like this change to happen now and a lot of these aspects are already in progress. They have been described by among others the

authors Daniel Goleman, Peter Senge, Joseph Bragdon, and C. Otto Scharmer, and it is our estimate that the work of these and many other writers, combined with insights and concepts from the field of leadership from the heart, can contribute to descriptions and solutions of some of the holistic challenges.

Our book is written in an age characterized by words like stress, pressure, working or being on call 24/7, competition, growth, greed, cynicism, anxiety, depression, sick leave, etc. One of the intentions of this book is to remind the reader that one holistic challenge mentioned above concerns the fact that we should take time out for such simple and down to earth activities as concentration and relaxation, rest and regeneration – not just on the micro level of the individual human being, but also in a more abstract sense with regard to the planet. This is neither a luxury nor a matter of course. It is not a naïve speculation, but a necessity to every living system. After activity, expression, and dynamic action should always follow relaxation, regeneration, and introversion. The organic pulse or breath, and the rhythmic alteration between activity and rest ensure that the implicit and self-organizing processes – in the human being and in nature – are allowed to live, work, and be sustainable. The living system senses itself in this way. So when we are online 24/7/365, our lives go off on a tangent and become unsustainable. This mode does not support the organic growth and maturation processes that are a precondition of a balanced life and development. On the contrary, it destroys life and nature, and is expressed in ill-health and breakdowns of one kind and another. We register this effect in a number of symptoms in the life of the individual, and in the impressions we get of certain societies and the ways in which they develop.

In our formulations of the concept leadership from the heart, our point of departure is that the individual must embrace values associated with the meaning of their own lives in order to be able to take responsibility for and manage their actions and subsequently participate in the leadership of other people. Human beings are the alpha and the omega of all management and leadership. Management and leadership are also characterized by a range of tools, methods, concepts, programs, and systems, but none of these can be applied independently of values, assessments, attitudes, emotions, ambitions, motives, and understanding. Human beings and their perceptions of the world and themselves as well as the meaning of their lives constitute the basis of leadership from the heart.

Prisoners of Our Paradigms

In his book *The Future of Management* the management researcher Gary Hamel states that we are all prisoners of our paradigms. Since the enlightenment more than 200 years ago, the development of the industrialized countries has been characterized and governed by the logic-rational left brain paradigm in which human beings controlled nature and all development. The human being was "in control". We have lived in an age of separation or in what the systems researcher Russel L. Ackoff called the machine age. In our quest for riches and material goods, knowledge, and power we have destroyed nearly everything. We have created divisions between thoughts versus emotions, body versus soul and spirit, we have split the smallest atom in the pursuit of power and hegemony, paranoid that we might lose control. We have founded sciences with a primarily partial focus that neglects holistic perspectives. We have even divided sciences, society, and institutions to the extent

that it is almost impossible to build bridges to other professions, domains, and fields which should ensure or at least contribute to more comprehensive views and holistic understanding. There are grotesque divisions within areas like disease and health, learning and teaching, nurture and care, research and development, which in many ways make it still more difficult to apply the knowledge, methods, and procedures developed in the individual fields. The characteristic concentrated effort, which in a limited perspective is a forte of an isolated area, also becomes a major problem, because integration and a holistic view encounter obstacles. We are not only caught in our general paradigms; we are also fixed in our specific professional paradigms and conceptual worlds.

Naturally we should not neglect our planet's considerable material, scientific, cultural, and human resources. However, we also notice a conspicuous amount of evidence that points to what could be called the necessary change. Fundamentally speaking, the change concerns respect for life on earth. The signs are everywhere apparent on micro as well as on macro levels. The management researcher John P. Kotter states that we inhabit a burning platform. In the macro perspective we see the global necessities translated to crises in climate, finance markets, poverty, health, and other imbalances resulting from globalization. On the micro level we cannot help but notice the mounting pressure on the individual, on the families, and on our children – be they time-stressed children in our part of the world or hunger stressed children in other parts of the world. The pressures are so massive that the changes are more urgent than ever. In his book *The Necessary Revolution* Peter Senge formulated our predicament as follows: "To abstain from doing something is no longer an option."

The new agenda is based on respect for life and living processes on all levels. The changes involve an inherent, almost mystical, symbiosis between learning and insight, compulsion and necessity. We have enormous insight into and knowledge of the history and the state of the planet, but also of future opportunities and pathways. The challenge is to prioritize sustainability, involving life and self-organizing life processes, as our most important objective. We must abandon the condition in which society and human beings continue to be stressed or ill, while we at the same time have comprehensive knowledge of the causes of these conditions, as well as drugs and tools at our disposal.

A Time of Departures

Paradigm shift, departures, turning points. The important issue is not the words we use, but what characterizes the present phase of profound change. As mentioned, our age is characterized by ecological and health-related issues traditionally associated with sustainability. Other aspects concern social psychology, geopolitics, culture, and human geography. The philosopher writer and spiritual guide Jiddu Krishnamurti said that it is not a sign of health to function and assimilate well in a society based on unhealthy principles. We should ask ourselves whether that is what we attempt to do in modern societies – do we endeavor to get people and animals to thrive and develop under increasingly difficult and unhealthy conditions? We would not characterize our own or other societies as dysfunctional. However, we heed the fact that many western societies – in spite of the enormous material wealth and unparalleled abilities – are characterized by a great many imbalances and tensions to the extent that it is difficult to identify development strategies focused on establishing a reversal to

stable conditions. Hence in our view the point is not to develop a vision for a radically different future. However, an appreciation of the exigencies of the future cannot be developed unless you have a clear concept of your past and present. We cannot purchase an image of our future. Past, present, and future are organically intertwined and are in a certain sense always present here and now. Our consciousness delimits the extent to which we are able to create these images and the quality of the processes we are able to apply.

The consequence of the changes in progress is that many of our social constructions, administrative arrangements, and habitual thought patterns and institutions can no longer be considered appropriate. They are incapable of understanding the changes occurring around us, because many of the preconditions, on which these thought patterns were or are based, have changed or disappeared completely. This means that the framework conditions of our mind-sets often no longer exist. They only exist in the mind-sets themselves. The economic and financial crises are among other things a result of the changes in the structures and cultures which formed the basis of industrial society. We have moved from a local divisive culture to a global and systemically holistic orientation. This means that the cultures and the concepts of the world we were born into are rather limited in the context of the present reality.

Elevated Objectives

As mentioned, we assume that leadership originates from within, and that the meaning of the individual person's life is the basis of leadership. Based on this premise, leadership is about finding ways to realize the highest potentials of people, society, and ultimately the planet. The management

philosopher Peter Senge refers to the main future potential in the following way:

… it's about rediscovering what we most value. It is about making quality in living central in our communities, businesses, schools and societies. It is about reconnecting with ourselves, one another, and our fellow non-human inhabitants on earth … What would a way of thinking, a way of living, and ultimately an economic system look like that worked based on the principles of the larger natural world? And how do we create such a way of living in our organizations and societies, one step at a time?

(Senge, pp. 40-41)

The highest future potential concerns life, responsibility, community, meaning, and sustainability on personal, inter-human, and global levels. Training and introspection are necessary and important on all levels, because changes come from within. In view of the increasing power of implicit and automatic habitual processes in human beings and in society, conscious, dedicated work and training are required if the explicit conscious processes are to contribute to decisive changes. We are in fact discussing a world, where life and life processes are the paramount priority on all levels. In this scenario the responsibility for the planet walks hand in hand with the responsibility for living an expressive and balanced life. Here listening sincerely to all of life's signals will be just as natural as sleeping and eating. It is up to us as responsible human beings to formulate and strive to realize our highest aspirations.

Leadership also concerns priorities, choices, decisions and realization of resolutions. Mihaly Csikszentmihalyi, who does research in the fields of flow and consciousness,

addresses the same issue when he writes that one of the main challenges of our time is to discover new foundations of elevated objectives, which reflect our comprehensive knowledge of the world. He talks about new narratives or myths that can bring a profound meaning to life, and thereby serve us now and in a near future, just like previous myths helped our ancestors make sense of their predicaments. Instead of waiting for new prophets, he says, we should perhaps discuss the foundations on which we could possibly build a new good life for everyone, based on the cumulative knowledge which scientists and other thinkers have developed.

We already have comprehensive data about ourselves and the world. We are surrounded by constant reminders of how the universe functions, to the extent that we are well aware of the types of action which support increased complexity and order, and the types of activity that lead to chaos and destruction. We are rediscovering how all forms of life depend on each other and the environment, and the precise extent to which every single action entails a series of consequences. We are surrounded by evidence of how difficult it is to create order and useful energy, and how easy it is to waste it in chaos. We have learned that the consequences of our actions might not be immediately apparent, that they might set off chains of events in distant contexts, because in a global perspective all issues are part of an interlaced and interconnected system. We are aware of these parameters, but we do not have sufficient knowledge about how we transform these insights into new practices.

An active shared responsibility for the community and the world of which we are a part is a necessary element in a good life, Csikszentmihalyi continues. However, the real challenge is to try to decrease the amount of chaos and disorder in one's own surroundings, without increasing it in

one's own consciousness. The Buddhists have some good advice on how to go about it: "Always act as if the future of the universe depends on your actions, all the while laughing at your own folly in believing that your actions will make the slightest difference". This type of serious jocularity, a combination of nurture, humility and humor, makes it possible to be committed and carefree at the same time.

The greatest alteration or the most significant change of gears in this process of development and learning concerns the shift from being controlled by and focused on external factors to an anchoring of attentive consciousness in the individual human being, in other words to change your explicit disposition. We should learn from within the basic components of a human being, while also maintaining the individual as an instrument, by tuning and training him or her. The training is the crucial point, the vital discipline which enables a genuine change of gears.

The author and physician Aron Antonovski described how an experience of continuity and cohesion in life can be created via an integrated process and interaction between: 1) *comprehension*, the ability to see and understand, 2) *meaningfulness*, the ability to create a connection to significant semantic issues, and 3) *manageability*, the ability to negotiate the questions of daily living. If an individual is to maintain a sustainable balance in life or in a process of change, these three levels must figure as constituent elements in an organic and integrated interaction during the readjustment, particularly when dealing with some of the major concerns, crises, and choices in life.

The Distinguishing Characteristics of Sustainable Companies

You might say we are in the midst of a Copernican Revolution in conventional business thinking. We are finally waking up to the fact that corporations are not the center of our economic universe, with people and nature orbiting around them. In fact the opposite is true. People and nature are the sun, the very life source of corporations. Powerful though they are, corporations utterly depend on the living world, the web of life that supports them.

<div align="right">Joseph H. Bragdon, Profit for Life</div>

One of the chapters in Bragdon's remarkable book *Profit for Life* is entitled *The Heart of Enterprise*. A book by the systems researcher Stafford Beer has an identical title, and Peter Senge et al. talk about thinking with the heart. If we study the companies that work with the kind of social and environmental responsibilities, which are the central parameters of Bragdon's measurements of socially and environmentally responsible companies, the so-called LAMP index, then we find companies which on the one hand are very different, but on the other hand also display some clear patterns whose development is characterized by the following issues: 1) Authentic mission and vision as well as values, originating and born within the company itself and which have a clear connection to values and attitudes which engage people within and outside the company, 2) A decentralized network organization, based on a principle of helpfulness, where you trust your co-workers. In this network the employees have a wide range of opportunities for participating in self-development processes in which

they are expected to work on self-organization, 3) A culture, characterized by a serving leadership, where the role of the leader is to serve the professional development of the co-worker, and where co-workers are treated as important assets, as opposed to employees who incur expenses and towards whom you have an obligation, 4) A commitment to continual learning which allows co-workers to experiment and fail in their innovative and creative processes, 5) A leadership which in an historical perspective undertakes a wise and careful financial leadership that reflects a clear intention to practice sustainable politics which in the long perspective will benefit future generations. Bragdon primarily characterizes existing companies that in some cases have lived for many decades and which have been, and still are, very successful. If we take a closer look at Bragdon's five characteristics, we cannot ignore the fact that they all concern companies that have values, attitudes, and conducts which reflect an explicit practice indicative of a specific view of human nature.

The dissimilarity between such companies and those with a short-term economic policy and no demonstrated responsibility for the environment and the social climate is not necessarily particularly visible at a first glance. The difference is a function of the varying mind-sets of the two types of companies. It is expressed in the owners' and the leaders' mentality and attitudes, but also to a great extent in the approach and emotions which the individual co-worker brings to the company. Do the individual co-workers experience that they can be themselves, be complete human beings, or do they feel that they must pretend to be someone else in order to be successful at work? "Self-representation is part of contemporary modern life" the front page of a conference flyer recently announced. The conference was on self-representation. "There are an increasing number of opportunities to get an online or a

digital identity – and an increasing level of expectations that you are represented on the web," the flyer continued. This might be a catchy formulation in a brochure, but the phenomenon is a sign of the times: the individual human being in a modern knowledge-intensive service company is ever more exposed in the workplace as part of his or her job. The individual and the work, the human being and the work process as well as the outcome become ever more inseparable. Hence it is not just important, it is crucial to modern working life that the individual has a clear sense of identity, a sense and understanding of which type of self should be represented, that his or her heart and brain communicate.

The Rational Human Being

"In fact, the human heart is the most powerful operating lever a company has – far more powerful and effective than the more commonly used lever of financial debt", Bragdon says. In this context it is worth remembering that Bragdon is a financial expert who does business research. However, in spite of such a statement, recent centuries show that we think and decide with our left brain hemisphere. A mind-set with a logical, rational, and linear bias has been dominant, and the concept of a human being as a rational entity has prevailed in much research. The idea that a human being has one, and only one, type of intelligence, i.e. the intellectual, has characterized much research into education and leadership. This was the general premise and economics was possibly the science where this was systematized most clearly. The distinguishing characteristic of economists has so far been that they work within a rational universe, applying the rational concepts of humanity mentioned above. Management theories are intimately related to the economic sciences, including business economics, and this is also one of the

reasons that the rational concept of human nature has characterized much management and organizational theory.

A great deal of the planet's and mankind's resources are administered and created by and in the corporate world. This goes for private businesses, but also a large number of public institutions like hospitals, schools, energy companies, jails, and many other types of communal corporations and institutions. This is where the majority of humanity's work energy is converted, money channeled, and power wielded. In other words, the ways in which the companies act in the world are of great significance to the global situation. By perceiving companies and organizations as living, conscious structures, a completely different potential for changing the world through *corporate leadership* appears. This involves company level duties and responsibilities, whose nature we are not familiar with from industrial society. You can clarify the formulation by saying that if the development in the world is to change in decisive ways, then governmental and parliamentary initiatives will in some situations be a precondition, but a concurrent crucial prerequisite is a change in behavior in private and public companies. Hence management and leadership (and corporate responsibility) are decisive to the development, and not just in the actual companies, but also in societies and the world at large. We would like to formulate it in the following way: companies have three types of responsibility. In the first instance a responsibility for the organization of the company such as it is. Secondly the company has a responsibility for the individual parts of the organization, i.e. primarily the people involved. Thirdly the organization should take on a responsibility for the surroundings of the company, i.e. a social and an environmental responsibility. Leadership and sustainability focus on the fact that we should become better at taking on all three kinds of responsibility, as mentioned at a later stage in the book.

Joint Responsibility

"Where your talents and the needs of the world intersect, there lies your vocation", Aristotle said. Vocation and mission are strong words, but in this context we find them appropriate, partly as a counterbalance to short-term greed and cynicism. Short-term optimization, which is now and then cynical and greedy, is as mentioned almost an accepted characteristic of the contemporary society governed by market forces. However, such short-term organized and occasionally legal cynicism is not a law of nature. The laws of nature are, among other things, based on the insights into living systems mentioned above. A number of these self-adjusting feedback mechanisms have been suspended by cynicism, legislation, and the attending attitudes and mind-sets. Leadership from the heart focuses on finding the interface described by Aristotle. It is a clarification of resources and talents for a cause or a context which could potentially make the world a better place. The point is to get to know yourself and become aware of the values on which you base your actions, and the purposes involved. Always begin with the end in mind, the saying goes. Where are you going? In which direction is your company heading? What is the purpose of the actions you take day in and day out, month by month, year by year?

Thoughts become actions, actions become habits, habits shape your personality, and as the years go by, characteristics become destiny. The process begins within the individual human being. Our thoughts and ways of understanding, our emotions, conscious and unconscious, our internal climate (crisis), if you will, are points of departure for all our actions, our personal aura and the effects we have on other people. Our cumulative effect on

our nexus and the world begins from within. As opposed to weather phenomena, we are fortunately not powerless with regard to our internal climate. We have the opportunity to work consciously on the creation of a better, more creative, more human and dynamic internal climate. However, the precondition is that we get to know ourselves better.

Bridging the Sciences of the Mind and the Material World

Since Peter Senge published *The Fifth Discipline* in 1990, the interdisciplinary research in the human mind has increased considerably with neuroscience being the structural pivot. Today we know much more about the individual's internal processes from the minutest details to the larger contexts than we did then – from mirror neurons to empathy and behavior, from body to emotions, thoughts and relations. A basic premise in this book is that in order to be able to take responsibility for sustainability, each of us must individually learn the basic feedback mechanisms which are the blueprints of the organization of all living systems. The organic, pulsating rhythms and balances of a living system include internal and external feedback. This entails an awareness of the individual components of the system as well as a focus on the system as a whole. In order to be able to perform sustainable leadership, one must know how to navigate. As a human being you need an inner compass, a distillation of all your experiences and values combined with a sense of direction, so that you know what your objective is. In order to be able to lead human beings, you must know the basic biological, psychological, and social mechanisms and rules of the game. This means that you should have interdisciplinary, theoretical knowledge whose practice is part of your personal experience. In short you should:

- Have your heart in the right place and project integrity, credibility, and personal grounding.

- Have heartfelt responses to other people and project resonance and empathy when inter-human problems occur.

- Have a heartfelt response to the totality. Shared responsibility for sustainable local and global processes.

This may sound soft and unrealistic, but actually it is very realistic and based on objective scientific facts about living systems, relational processes, and personality psychology. Or in Senge's words about people who work in future oriented ways:

> *First, individually and collectively, they are continually learning how to see the larger system. Second, they understand that it is crucial to collaborate across boundaries … and finally, as people work together they also come to focus on what truly matters to them … creating futures they truly desire … A sustainable future will entail collective creating of every imaginable sort. It will involve bringing into existence over time a new energy system, new types of buildings, and new ways to dramatically reduce waste and toxicity … and it will require the courage to act without all the answers.*

Western science has had a tendency to recognize only objectively measurable data as science. However, recent technological landmarks like, for instance, various types of brain scanners, new neuroscience, and the establishment of a neurophenomenology per se have created an interface, where internal and external sciences focusing on human beings perhaps will become two sides of the same coin.

Historically, we in the modern, scientifically oriented West have isolated the mind from the body, from nature, and from other minds. Our experience of our body, nature, and other minds has to be constructed privately... We are now experiencing a revolution...that the mind is always embodied in and made possible by sensory-motor activity of the person, that it is interwoven with and co-created by the physical environment that immediately surrounds it, and that it is constituted by way of its interactions with other minds. The mind emerges and exists, from intrinsic self-organizing processes, interacting with other minds.

(Daniel Stern)

Leadership from the heart revolves around four central issues which constitute a movement from:

1) The actual organizational and systems theories, the external framework, and then on to

2) The leadership triangle's internal aspect, i.e. the inner maps and the inner tools, which the leader uses as his point of departure.

SHARED
RESPONSIBILITY

obligation   synergy

INTEGRITY   RESONANCE

personal
working point
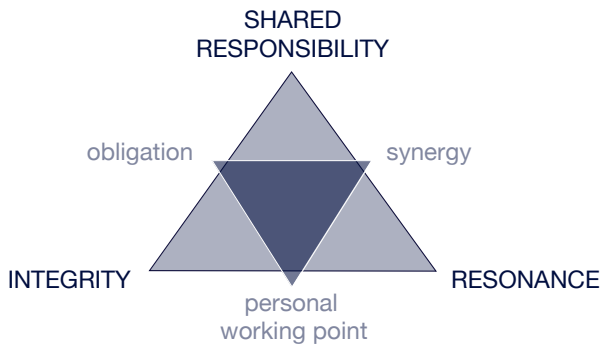
Figure 1: The leadership-from-the-heart triangle

3) In this context the personality is trained in orientation with regard to gear shift, including recognizing and sensing central aspects of the self (body/emotions/thoughts/relations).

4) The fourth element, time, is included as a vital factor, in terms of clarifying the (life) direction, in effect how to work on the purpose and the vision, and how to crystallize the objective.

We shall elaborate on these four fundamental pillars of leadership from the heart later in the book.

Senge et al. (2008) refer to "a thinking of the head" and "a thinking of the heart":

> *For pragmatic managers, opening the heart may seem soft and a long way from what is needed for tackling difficult problems … The former (thinking of the head) has to do with reason and logic, while the latter (thinking of the heart) has to do with meaning and becoming fully engaged, two qualities that are essential for tackling systematic problems.*
>
> *(Senge at al., 2008)*

Spirituality and Leadership

Operating on the premise that leadership is about people, values, opinions, and beliefs come into play. This is an important – and also in some sense a very simple – realization, which we must understand and accept. Leadership is not just about machines and technical efficiency. It is just as erroneous to treat and view people like machines today and in a hundred years from now as it

was in F.W. Taylor's day and age. We are guilty of this fallacy, which we continue to practice in many ways and fields, but it is not the way to go. Human beings should be treated as the individual and meaningful entities they are.

Personal Development – a Plurality of Concepts

When we talk about introspection, training, life processes, etc. we approach a broad concept often described as personal development. This is, to say the least, an extensive field, in general and in corporate terms. The reason is that our knowledge of leadership of human resources is limited, and hence a great deal of confusion characterizes the field. With regard to the business world, the Danish public sector, and the world at large, it is difficult to describe issues related to human progress, development of personnel and leaders, cooperation and stress management. Some very specific abilities are required to describe these issues adequately. The reason is that above and beyond a long list of the more traditional manpower policies and psychological concepts and tools, this field also consists of concepts like astrology, graphology, numerology, healing, crystal balls, tarot cards, sweat huts, fire walking, prayers, massage, Jesus, Mohammed, Hinduism, Buddhism, dream interpretation, Taoism, holistic health, ayurveda, acupuncture, aura healing, crystal healing, homeopathy, tai chi, and yoga, as well as concepts like coaching, mentorship, mindfulness, and karma. This multifaceted field testifies to significant will power and great commitment, and in many ways it also signifies an attempt to practice considerable responsibility. It is important that we are open to the learning process and adopt a critical stance to this cornucopia of offers, while also attempting to differentiate between the possible and the useful. In this context it is also important that we try to

distinguish between religion and spirituality. Religion concerns belief and a deity. The concept of spirituality signifies our profound understanding of relations and connections in the world. Spirituality refers to my way of administering myself in larger contexts, my responsibility, and the shared responsibility for myself and the holistic scenarios I am a part of. In this book we attempt to represent sustainability as a practice of spirituality.

Learning from the Future

There is a difference between on the one hand learning about and making prognoses and plans for the future, and then subsequently creating it, and on the other hand learning from the future, while you create it. We are confident about the former, which is also the classical conception of leadership. On the basis of what we learn from our experience and the past, we plan the future. We believe in the past. Of course some of the knowledge from the past will always translate to the future. However, it is not difficult to imagine a situation, where many methods and concepts from the past become obsolete in a future perspective. This is our present situation. There is great insecurity with regard to which models and mind-sets we can successfully lift into the future. In this situation the latter consideration mentioned above is important: learning from the future while we create it. Scharmer, Senge, and others talk about creative presence. In principle this concept is diametrically opposed to the former view, and this is the perspective we advocate in this book.

Time and Sustainability – Time and the Meaning of Life

When we wish to make life and the life processes explicit, it is necessary to implicate time and the ways in which it is used and ordered. The self-organizing process, around which our personal development is structured, provides sense and direction in life. The meaning of life is lodged in every living organism and system as an implicit self-expression and intention. It unfolds in time. Time passes while we are engaged in these processes, so to speak. The present is created in the context of the priorities and the choices of the past. This means that the present meaning of life rests on previous priorities and choices. Much of the history of humanity is lodged in implicit habitual processes, in the sense that a lot of the meaning of life is a habit – a self-organizing process. The meaning of life is that which for every human being generates an abundance of life and a sense of direction.

The explication of sustainable leadership processes concerns:

1. seeing reality as clearly as possible

2. ascertaining, evaluating, and prioritizing the experiences of the past

3. describing a desired future as clearly as possible in terms of contents and visualization (the meaning of life in the company/organization)

4. interlacing the resources of the past (values and experiences) and the intentions of the future (goals and meaning) in an explicitly chosen and intimately organized present.

We would like to quote Vaclav Havel's insight, also used by Scharmer: "Something wants to be born". On societal and corporate levels we are in a management situation, where we quite evidently have to take leave of a number of old thought patterns and solution models. We need to do so for reasons which Albert Einstein defined very precisely with the statement: "A problem cannot be described and solved with the type of thinking that created it." Self-confident as ever, that is precisely what we often attempt to do.

We have the programs of the political parties, we have many kinds of models for leadership, organizations, and societies, and we are never at a loss for answers. That was how we were raised and taught: one should always have an answer. The world is full of answers and solutions to questions and problems which do not exist in such simplified versions as the answers and the models presuppose. However, since that is all we have and since we dare not move without these crutches, we use them and then we more often than not find that we are in the wrong.

Vaclav Havel said: "Something new is on its way in and something else is on its way out". The new paradigm arrives through a painful birth process. The new paradigm consists for instance of thoughts and predispositions for models and knowledge about societies characterized by networks, innovation, and science. The old paradigm, which must be modified or phased out completely, consists of a number of mind-sets, structures, institutions, and elements from the old industrial society. The old industrial and bureaucratic systems fall apart. That goes for the individual company and the societal structures as well. Stock exchange and hospital systems, industrial corporations of many kinds, schools and educational systems – many of these are suffering because the old answers do not address the new questions adequately.

Nevertheless we are ready to migrate all the old values into the future as our best answer to the challenges we believe will come. We believe that we have understood these challenges correctly and have the right answers and models to deal with them. We are ready to continue the same fundamental growth and competition philosophies, the same views on people and organizations, the same attitude to nature and the world which we have practiced and lived by for the last 200 years. But if we listen to the present, we listen to the future, and in that case the many high-pitched alarms signals are obvious. The planet's living systems quite simply suffer to an unprecedented degree under the managerial and societal mind-set we have practiced throughout the twentieth century.

We must become better at learning from the future in the process of creating it. We learn constantly, but the industrial era is characterized by the fact that we, in terms of organization and leadership, have remained within the same material, short-term growth and efficiency paradigm. Our main challenge is to introduce the possibility that this entire era and its leadership mind-set constitute a station en route to a more sustainable paradigm with a long-term perspective.

This entails a radical confrontation with time-honored principles and organizational models. When the past does not make sufficiently clear statements about prospective challenges and solutions, we need to use our senses to navigate into the future. We must look into the future in more open and thereby also more vulnerable ways than we are used to. Our self-assurance is the problem and our main challenge. In the future we must attempt to abandon our cocksure attitude, and navigate and learn in other ways. If we are to understand the challenges and the opportunities of the future, we must move to the next level of courage and readiness to suspend our self-confidence.

The Great Paradigm Shift

This chapter focuses on the ways in which the western world throughout the last century has been characterized by a drastic industrial and material development, stemming from a wish to reduce the inefficiency associated with the production methods of the early industrialization. The result was that technology and machines had priority over people. Scientific management became the royal road to economic optimization. Since 1970 there has been a growing focus on the negative consequences of this approach. Our planet is imbalanced and this is reflected in the very concrete fact that there is an escalation of absence in the workplace due to illness and stress. There is a need for a paradigm shift, a change which is already in process. The unsustainable efficiency must be replaced by sustainable effectiveness, where life has priority over money, and where the human being is reinstated in a position superior to machines.

An Unsustainable Efficiency

"There is no kind way to say that the business world destroys the planet", Paul Hawken states in the book The Ecology of Commerce. This is a strong formulation which

we quote because we agree with the author that the business community worldwide shares a significant co-responsibility for the planet's condition at any given time. It goes without saying that this responsibility also applies to the miserable state of the world at the beginning of the twenty-first century.

Inefficiency was the main challenge of the industrial revolution. In hindsight the gist of this moment was to systematize things and to upgrade all kinds of production to large scale. *Mechanization, standardization, maximization, synchronization,* and *automation* were keywords in the old industrial society, and they still apply to the emerging industries.

The first mass-produced car, the Ford Model T, rolled off the assembly line in 1908. By the standards of the logic of the intermediate age nothing could be big enough. Improvements in efficiency and productivity constituted the main goals of the industrial development, and to a great extent they were possible. In the last 100 years extreme progress – or whatever we may want to call it in hindsight - has been achieved. The production per work hour in the USA multiplied by five in the years 1890 to 1958. In terms of management and organization, the American engineer F.W. Taylor and the German sociologist and social scientist Max Weber were the main contributors to the mind-set, which at organizational and leadership levels put into practice the gigantic improvements in efficiency and productivity. Their philosophy became an important part of the escalation of the material wealth which characterizes the more affluent parts of the world.

Taylor founded what we tend to call the scientific management movement within the business world and the public sector. Around 1900 he cast a cool eye on the American business community and saw massive inefficiency.

"Until now people have had priority over machines", Taylor said and added: "In the future the systems must have priority over people". Through this approach he became part of the development of the so-called scientifically based systems designed to eliminate all the inefficiency which characterized the business community. It did not go down quietly.

These systems and tools became Scientific Management, a new term for the new era. Scientific corporate management was based on research into the interface between time and method, planning techniques, schedules, many kinds of control and registration systems, the stratified organization divided according to layers and functions, etc. The result was gigantic increases in productivity, primarily in American and European business communities throughout the twentieth century. Scientific management and later management science were essential keys in this development. The systems-before-people approach resulted in an unprecedented material production and growth.

Three or Four Extra Planets Are Required

The value of the cumulative economic production output on the planet calculated in fixed prices has increased from 6,7 trillion dollars in 1950 to 48 trillion dollars in 2002. During the same period the world's population increased from 2,6 billion to 6,4 billion, but only about one fourth of these people have access to the goods produced by societies characterized by mass production and mass consumption. The 200 richest people in the world own more than the poorest 2,5 billion people make in a year. Almost half the world's population lives on less than $2 per day, while the average American makes $130 per day. If the planet's remaining population were to have a living standard on a par with the European population, three to four extra

planets like the earth would be required. A few more figures: approximately 500 million people live in metropolitan slums. Every year around 50 million people migrate from rural districts to the megacities of the world, because the societies and the economies in which they live break down. The USA consumes 100 billion tons of raw materials per year. More than 90 percent ends up as waste. That translates to one ton of garbage per person per day. The USA consumes approximately 25 percent of the world's oil production, which equals 20 million barrels of oil per day. According to UNICEF, the UN's organization for children, one billion of the world's 2,2 billion children live in poverty, and 400 million children do not have access to clean water. Every year 11 million children die before the age of five. The average American child watches 40.000 television commercials per year. 12 million American children (approximately 17 percent of all American children) live in families, whose income is below the poverty rate. It is estimated that every year 4 million American children starve for a longer period of time. Every day 40.000 children die from diseases that could have been avoided. Unfairness, mind-sets based on inequality, and other phenomena in the world prompt the unequivocal conclusion that this cannot continue! Even if the individual might find it impossible to contribute efficiently in a world with such enormous inequalities and challenges, there is still reason to be optimistic. Every one of us knows from experience that it is possible to influence all of this through our own behavior as leaders, co-workers, and consumers.

The industrial revolution and the gigantic industrial development in the nineteenth and twentieth centuries provided the world with such an intoxicating level of material production and consumption that we lost and destroyed what the biologist Edward O. Wilson called "humanity's basic respect for life and nature". We severed

the connection between companies and nature, a link which supports and presupposes the existence of the corporations. Companies were perceived as mechanical entities that had a life and a legitimacy of their own. The logical conclusion of such an independent mind-set was that the corporate world without further ado, could and should go forth and conquer the world, nature, and anything else in their path. This untamed and reckless growth and conquest philosophy yielded the enormous material results which we are now so used to that a tiny part of the world's population behaves as if they almost have a legal claim to maintain this material consumption. In turn the planet and its flora and fauna pay a high price. The price is so high that today we must realize that we are caught in a global trap which on the one hand is characterized by a drastic increase in population and on the other hand a considerable decrease in the planet's capacity to sustain us. We have become so intoxicated with material wealth that we are now a liability to ourselves. We are the greatest threat we have encountered so far. When a person endangers himself, he is sometimes committed to a psychiatric hospital. That will not happen to us. We are in charge, and so far we have been able to find ways and means to solve our problems. That is our main argument. Till now we have mainly been able to escape from serious traps through expansion on a physical level. In the sixteenth century we discovered that the globe was large and round and contained much more than the small world we had known up until then. In the nineteenth century we survived by virtue of the industrial revolution and the massive utilization of the planet's physical resources which was part of this revolution. We no longer have the option of resorting to physical solutions with the same degree of success as previously. It seems that the only way out of the present considerable crunch is focused on ideas, new mind-sets, new concepts, and new kinds of organizational and management approaches – individually and globally.

In the nineteenth and twentieth centuries we developed a corporate and management philosophy focused on the fact that the company's main success criterion was to produce the greatest possible profit. The profit was calculated without consideration for the company's consumption of natural resources and without concern for the negative and positive short- and long-term effects on people in the organization and the surroundings at large. All things considered, humanity, the environment, and the world's resources paid a considerable price. The mental models that govern the traditional company delimit the type of decisions the companies make. In actual fact, these models predetermine corporate decisions of a limited scope and responsibility and are often extremely detrimental. In other words, it seems that we, throughout the development of the twentieth century, have forgotten humanity's basic respect for life and nature, and have come to believe that the human brain can take charge of life and nature. We seem to think that through advanced calculation, control, and planning, combined with scientific research and training, our intellect can sustain and expand the power over the planet and its development. The result is a tremendous overexploitation of nature and humanity, and a blind faith that still more scientific education and research will keep us afloat. Many governments seem to concur in this belief. Money has so far been the main value of industrial society. David C. Korten, who is an economist and former professor at Harvard, bluntly states that in modern society money has become "the ticket to life itself". We measure everything in terms of money – objectives as well as means.

There is a difference between economizing, and weighing and valuing everything financially. If the world's population develops as expected in the next 50 years, then one thing is certain. We will need to do some serious economizing, and save on the limited resources available to humanity. This is

tantamount to revising the dominant criteria of short-term economic results and objectives, which characterize most of our decisions. We need to upgrade our criteria to the present situation. There are several ways of economizing with scant resources, and we should add more criteria and limitations to our calculations and concerns. It is possible to have several concurrent goals and criteria. In 1971 Professor T. Paulsson Frenckner from the Handelshögskolan in Stockholm (the Stockholm School of Business) stated that "It was never the purpose of the Nordic business economy that the sole objective should be a maximization of profit, and that the only bottom-line should be the economic balance sheet. However, that is the present state of affairs". This is a very interesting statement, and there is an obvious link to the current debate on governance and responsibility in a number of western industrial societies.

The Oil Century

The twentieth century has been called *The Oil Century*. For the past 200,000 years there has been a human presence on the planet. For the first 190,000 years human beings were hunter gatherers – and the sun was the main source of energy. For the next 10,000 years we became farmers – and the sun continued to be the main source of energy. Approximately 10,000 years ago the human population was presumably between 2 and 20 million people. However, in the last 150 years the planet has seen a population explosion, and an extremely steep activity curve based on large supplies from other sources of cheap energy – mainly oil and other fossil fuels. In the middle of the eighteenth century, when the industrial revolution escalated in Europe, around 750 million people populated the earth. In 1830 the estimate was one billion. In 1900 approximately 1,5 billion and

in 1930 2 billion. The demographer Hans Kornø Rasmussen describes this development as follows: "It took tens of thousands of years to reach the first billion. Another 100 years to reach the second billion. Then we see a turbo effect". In 1968 there were 3,7 billion and today we are 6,5 billion people. In the course of the next 50 years the world's population will presumably rise to approximately 10 billion. This increase in population will be extreme.

We are in the process of abandoning the old industrial society. For most people in these old industrialized countries there is today basically one overarching theme: the enormous work pressure and the ever-increasing demand for performance. We work ourselves to the bone, but – as expressed in the popular and often repeated question – what is in it for us? What is the point – in our society and in the world? Anyone who cares to look will find that the world's growth is obviously irregular, and that the development in our own society is also uneven.

Our subject is the flexible human being. We make sky-high demands on ourselves and others. Many issues in the western industrialized society not only hint at, but clearly demonstrate that human beings cannot physically and psychologically stand up to these pressures. In fact they succumb in great numbers to various types of stress. Hence there is a need for new measures, for instance in leadership, so that people can consolidate their lives, get more self-confidence and self-esteem, find peace and quiet, get in touch with basic deep existential qualities, experience real influence and a real shared responsibility for their lives, and thus feel embedded in a greater context. Such measures seem to be necessary if people are to function – even survive – in the frenetic world we have developed. The challenge is to practice long-term leadership in a short-term world, and to lead with clear objectives and criteria for

efficiency and quality, while also treating co-workers, leaders, customers, and other interested parties, including nature, appropriately. Somewhat imprecisely, you could call this sustainable human efficiency.

By and large the characteristics of the modern industrial society seem to be the opposite, namely unsustainable efficiency. Many issues in the world are profoundly interrelated in such ways that division is harmful. Detrimental fragmentation occurs when you split up an area characterized by closely interwoven interfaces which we overlook or choose to ignore. We create artificial divisions between body, soul, and spirit, and separate the brain from the heart, working life from private life, science from art. This attitude could well tear a company apart.

One of the great challenges is to heal the fragmentations perpetrated during the last decades. In many areas there is a profound need to create coherence and holistic concepts. Our aspirations should be higher and we ought to believe that they can be realized. We should believe in human beings and the meaning of inter-human confidence. The sciences of the human psyche, inter-human relations, and the planet demonstrate that we are intimately connected on macro as well as on micro levels. The understanding of a profound cohesion should be central to the world view, which we must develop and use as our compass. For the sake of future generations we need to cultivate a connection with holistic principles, and eliminate the divisions between people so that our actions are based on shared intelligence. In present day society we see the opposite, i.e. some of the greatest robbers are heads of state or politicians, or they are greedy and cynical leaders in private corporations. However, we also experience a preoccupation with holistic approaches and spirituality, as well as a respect for connections and responsibility. These initiatives inspire

great hopes for the future. Examples of such companies and measures, described in publications by, for instance, Peter Senge and J. Bragdon, substantiate this development. Jeremy Rifkin (2010) adds to the discussion with his views on an empathetic civilization and the need for a "global embrace".

A Real, Real World

The question is, as formulated by Senge et al., if we should consider the industrial era of the last 150 years as a bubble and take a much greater interest in what goes on outside the bubble? What would that mean to us and in a longer perspective to our descendants? The answer is probably yes! We should do so, and we are already taking an interest in life outside this bubble. May we remind the reader that it took less than a year for the climate to become a significant issue in the Danish and the international leadership debates? The fact is that today we talk about the social responsibility of the corporate world in ways which we scorned only a few years ago. Moreover, millions of people throughout the world participate in thousands of activities, organizations, etc., which take an interest in the opportunities outside the industrial, material, and mechanical growth bubble. The bubble is not a result of a few people's greedy and selfish behavior. It was created by a mind-set shared by millions of people. However, there is a real world outside the bubble, which calls for attention – to put it mildly. Or in the words of the biologist E.O. Wilson: "There is a real, real world outside the bubble".
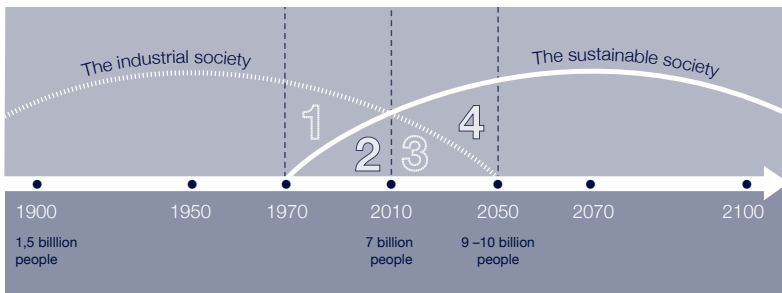
The Paradigm Shift

The word paradigm originates in the Greek paradeigma, which signifies prototype or pattern. Present day use of the concept stems from this sense of the word – a mind-set or a system of thoughts and connections. The concept of the paradigm is often associated with the American science philosopher Thomas H. Kuhn (1922-96). In the work The Structure of Scientific Revolutions the concept of the paradigm is formulated in this context for the first time. In his book a paradigm is described as a cumulative pattern of concepts and arguments shared by a group of scientists. A widespread scientific concept is that a paradigm creates patterns and is identified via some basic thoughts and assumptions about science and reality. A paradigm is a comprehensive formation of theories and a general view of the world which is shared by the scientific community.

We presume that we are in such a turbulent phase in the development of the world that we may well speak of a paradigm shift. This is a charged and to some extent misused word, but we choose to apply it in this context. Major societal changes occur as we speak. There are at least four preconditions, which must be fulfilled if a new paradigm is to replace an older: 1) A crisis must occur which the old paradigm cannot solve, 2) The new theory must be able to point to a solution of the problems, 3) The new theory must be operational, 4) The new theory must have ways and means of influencing relevant decision-makers and people in power. In Figure 2 we attempt to illustrate the main view. The figure is a sweeping simplification, where the present is positioned in the middle flanked by two major developmental processes. In the first phase we see the industrial development of the nineteenth and the twentieth centuries. The concept is, as mentioned, that the industrial era is phased out in countries like Denmark, while a drastic industrial development takes place in a number of other

countries like China, India, Brazil, Vietnam, etc. This process has been under way for decades, and one of the results is that a decreasing number of people are employed in industrial corporations in Denmark. One era has come to an end and a new is beginning.

The other phase primarily concerns the twenty-first century. In our model this phase begins around 1970. About this time the western world was engaged in a comprehensive debate on limits to growth – inspired by among other issues the Club of Rome initiatives. The first oil crisis also occurs around this time. We call the second phase the sustainable era. Of course the two eras overlap regardless of what we call them and how wide-ranging they turn out to be. Moreover it is not crucial whether we graphically and conceptually imagine the process as the beginning of a new epoch or if we conceive it to be a steep developmental incline on a curve. However, in terms of the present reasoning, and the way the graphics are drawn, we visualize a paradigm shift or a phase of comprehensive transition that will be in process for a number of decades. We assume that the era that is about to begin will necessarily be an epoch of sustainability, where the central focus of still more decisions will be life and respect for life in all its forms and representations.

The industrial society   The sustainable society

1   2 3   4

1900   1950   1970   2010   2050   2070   2100

1,5 billlion people   7 billion people   9 –10 billion people

Figure 2: A paradigm shift in process

In the illustration this period of transition or developmental quantum leap is divided into four sectors that represent a phasing out and a development, respectively. In sections 1 and 2 the focus is on phasing out and developments that have already occurred and which we are hence able to analyze and describe. In sections 3 and 4 the focus is on phase-out and developmental processes that have not yet eventuated. Here only guesswork and visualizations are possible, and only in our mind's eye can we extrapolate how we might learn from prospective events and perform conscious leadership. The period of transition will encompass decades in which the old industrial society will still be alive and well. A number of corporations, and management models and systems will continually be active, while alternative approaches, methods, models, and mind-sets will be applied and explored to an ever greater extent. We imagine that quality of life as an overarching criterion for decisions on all levels gradually can and will become a dominant value, which politicians, company leaders, and consumers in still greater numbers must and will respect.

Towards the end of the twentieth century we initiated (sector 1) a phasing out of the old industrial society. It is almost a revolution that has occurred, but it happened without major quakes, by and large because there were sufficient flexibility and vision to ensure progress for other business areas and other forms of value creation. The development in the management and organization field was characterized by the fact that cracks appeared in the facades of the old models, and the preconditions disappeared or became so modified that it became urgently necessary to develop alternative models and assumptions. Theories, rough drafts, and presumptions concerning the sprouting knowledge-intensive network society took shape. The learning organization was a significant element in the development, and in hindsight this type of organization was

perhaps an intermediate link between the old industrial society and the new sustainable society. The traditional planning mind-set, which basically consisted of prolonging the old patterns, sequences of natural numbers, and structures, as well as the related simplistic optimization focus, was scrutinized. The rationale of the optimization focus was to enhance and vary the use of the available resources within a given framework. This mode was replaced by an approach characterized by curiosity, a representative of the learning organization, and it had a wide acceptance of other systems.

The general development in the last decades of the twentieth century (sector 2) was among other issues characterized by globalization and liberalization, by large refugee migrations, and the resulting national and political confrontations concerning immigration and regulation of immigration. China, India, Brazil and many other countries began an industrial development that has changed the world completely. The management models and tools that characterized the development in the old industrial societies throughout the nineteenth and twentieth centuries culminate in scientific management and management science. These became significant elements in the neo-industrial development that caught on and continues to develop in these very large countries. In the western industrial societies the learning organization combined with total quality management (TQM) became knowledge-intensive corporations, and service and event companies that experimented with ethical, knowledge related, and environmental accounts. The traditional unions were under pressure and trades intersected. However, in the final analysis the development during these years was characterized by the progress in information and communication technology, which gave us the mobile phone, the Internet, and the enormous growth in computer

science. These conditions accompanied by an economic upturn of enormous dimensions, and a comprehensive globalization led among other things to a drastic development which subsequently became an IT bubble and later a finance bubble.

At the beginning of the new century the industrial societies in some countries were and continue to be in a phase-out process (sector 3), while the neo-industrial development in China and India, etc. continues. This development is also related to changes in the power axes in the world and is characterized by, for instance, the fact that the western societies, USA, and Europe lose ground and slowly relinquish their traditional leadership role in the world, including the hyper consumption role played by western societies for quite a few years. A cradle-to-grave mind-set is substituted by cradle to cradle sustainable solutions in an increasing number of areas. In Denmark the established welfare society undergoes changes in the sense that the traditional structures and norms give way to new modes, and the political parties, the unions, and the family structures are transformed. Financial structures and patterns are possibly also being demolished, especially in the light of the serious financial crises. On the leadership level the simple bottom line mind-set is increasingly challenged, while global competition is intensified and spreads to an increasing number of regions. The classical hierarchic structures continue to fall apart, and new networking cultures arise in the individual company as well as between organizations. We are groping, Rifkin says, in a grey area between a dying civilization on a life support system, and a sprouting new civilization trying to get a foothold. Our subject is a sustainable paradigm, but Rifkin talks about "the third industrial revolution".

The planet has become small – even flat if you refer to the title of the American writer Thomas Friedman's book. A tripolar or neopolar world is developing. China has become a super power (section 4). India and a number of other countries in Asia as well as in Latin-America are in the midst of an industrial boom; Europe and the USA are challenged. Sometimes reference is made to China and the USA as the G2 countries. Reforms that settle with the mind-sets related to welfare and affluence are urgently needed in countries like Denmark. Thoughts on sustainability – and in a broader sense ecological and climatological issues – with clear references to for instance the Brundtland Report from 1987, are to an increasing extent part and parcel of a wide range of debates. Sustainability will thus, as described in this book, become a subject and a theme which varies according to the representation on individual, corporate, societal, and global levels. It is difficult to imagine developmental features that could reduce the significance and the extent of the global sustainability agenda. Important issues are phased out in the present decades, while interesting and advantageous developmental features emerge. The perceived immediate collapse of the western world might hence very well turn out to become an era of prosperity of considerable dimensions. New distributions of roles on the world stage will be combined with a global development towards increased sustainability. This development will be characterized by a change in the marketing and optimization mind-sets from short-term unsustainable to long-term sustainable business models that in time will transform the classic capitalist system as we know it to a civilized capitalism or what has been called a viable biosphere economy.

We anticipate that in the course of a number of decades we will see a kind of development whose logical effect will be that in 50 or 100 years it will be second nature to corporations,

public companies, and governments to make long-term decisions on sustainability issues just like we nowadays make decisions where economic- and growth-oriented rationales and criteria are dominant. We allow ourselves to move on and hint at the opportunities for improved quality of life, which such a development will provide for every individual on the planet. In so doing, we also wish to add some important positive aspects to the current political and management debate, which is characterized by the crisis and a sense of imminent catastrophe. We would like to stress the perspectives which appear as soon as you envisage that the basic criteria for decisions will change to the extent we believe. These perspectives will reflect a positive view on learning, i.e. a concept that great changes are possible because of increased insight and a heightened consciousness shared by still more people. Finally it will gradually become abundantly clear that there are no viable alternatives for survival. We are convinced that we are facing fundamental necessary changes and that ever growing numbers of citizens on our planet are increasingly aware of it.

On a leadership level, the industrial age was characterized by a wish to eliminate inefficiency in still more areas of life and the corporate world. There was a widespread concept that still more efficiency, and still greater fabrication of all kinds of mainly physical products would be the way to go. The momentum of this initiative to eliminate inefficiency was, as mentioned above, systematized around 1900, when an increasingly scientific approach to leadership was developed. In this process the rationalization of private and public corporations was taken to a higher level. One of the reasons was the scientific management movement and the number of techniques and methods that accompanied the scientific approach to management. The development of TQM, Operations Research, Lean, and other techniques and methods from the latter part of the twentieth century

created an additional momentum. We envisage that the transitional period, which in Figure 2 is represented by the four sectors, among other things, will be characterized by a development of a new phenomenon of inefficiency. This phenomenon will be caused by the fact that some of the corporations and public organizations in the process of development retain attitudes, values, and problems that are perceived as part and parcel of the future scenarios, but in fact are dominated by the management and organizational philosophies of the past. The result will be that during the transition phase an increasing number of systemic problems will arise as a result of inappropriate management and organizational practices, which are founded in and explained by management philosophies and solution models of the past.

In other words inefficiency will be on the increase, while one attempts to solve the problems caused by the inefficiency by means of the models and the tools that have created the problems. This means that apparently a number of the initiatives implemented in our own and similar societies often make the situation worse. As mentioned, we currently see a significant manifestation of this problem in the increase of absence due to illness, and ever more stress in public and private companies – even at primary school level it looks as if the negative effects of an inappropriate way of understanding and solving the current leadership challenges have substantial negative effects.

In a recent interview (4 January 2010) the chief psychologist in the Aarhus municipality school system said: "The pace in the primary school system is now so highly strung that many pupils need medication or are sent to special classes. Increasing amounts of Ritalin are prescribed, since it helps the unruly pupils, suffering for instance from ADHD, to concentrate. Medicating children to give them a normal life

is a danger signal". This formulation is very careful. It would be more to the point to say that the development is catastrophic and a symptom of an illness which our society should respond to. In her book *Stress – the Modern Trauma* another psychologist, Nadja Prætorius, represents a hopefully exaggerated negative perspective on life in the modern public and private company. "The workplace will in the future be perceived in the same way as a victim of torture experiences the torture chamber. It is the place in which you have suffered assault and molestation… my provisional suggestion for a new diagnostic category is work-related traumatization". According to Prætorius, the working life in the modern corporation is dehumanized. In the book *The Meaningful Working Life* Svend Brinckmann addresses these questions and quotes Peter Triantafillou. In an academic treatise Peter Triantafillou concludes polemically that our current problem is not a dehumanization of the relations in the workplaces, but the increasing humanization of these sites. "If this diagnosis is correct", Peter Triantafillou continues, "we hardly need increased self-realization through work, but rather an increased alienation from our work". We include these statements because they stress the complexity of the compounded problems that characterize a modern society in a process of transformation. In this transition there will be much confusion and insecurity as to how to understand what happens, what the goals and the means should be and how to understand the processes, the phenomena, and the symptoms, which become ever more apparent. We are convinced that these characteristics are only a part of the truth about life in contemporary public and private organizations. However, our contention is that the problems have reached such a scale that it is safe to conclude that public and private organizations have a great problem with inefficiency and that the solution to this problem is integral to the entire process of the necessary transformation which

is already happening. Figure 3 is a graphic representation of the change. In the figure the possible transformation is represented by the gradual development of the curve. The rationale is the previously mentioned concept that we, during a transitory phase, will develop a new leadership paradigm.
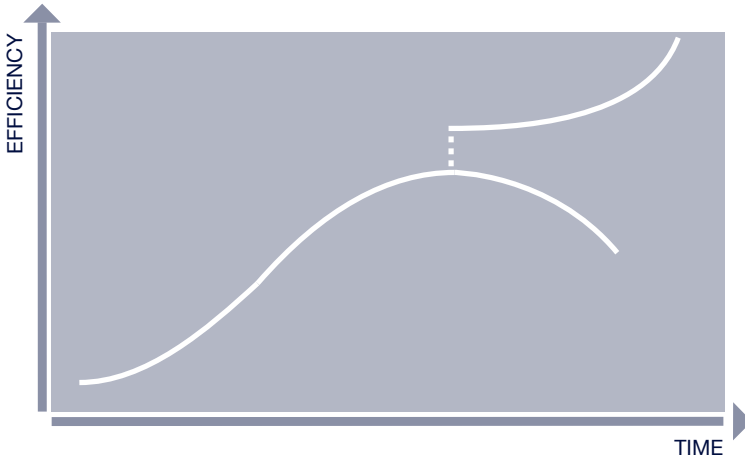
Figure 3: The new inefficiency and possible change

It is essential that we should not continue to perceive companies as numbers and statistics, as something that is owned by someone and hence can be taken advantage of or used at one's own convenience. A company is not just *something*. A company is so much more. It consists of human communities – a WE. A company is a location in which a number of independent people exist and work together. However, a great number of the organizational and management theories have an "it" or "something" approach to leadership, an implicit understanding that if only we improve the "it" aspect of the company, then all will be well. Hence there is a substantial focus on key ratios

and statistics. For this reason we stake astronomical sums on many kinds of systems: IT systems, financial management, customer relationship management (CRM) systems, etc.; we invest almost blindly in machines and computers. Millions and billions change hands. We structure and restructure for all it's worth. We draw one organizational diagram after the other on whiteboards in meeting rooms with the most exquisite interiors equipped with sophisticated boards and systems. The truth is that it is often to no avail. However, as soon as the human aspects of the companies are discussed, then we become cautious, stingy, dismissive, and demand to see simple documentation and proof.

The Answers of the Industrial Community

The old concept of a corporation is that the planet is human property and a thing which we can appropriate and exploit as we please. The companies are owned by human beings whose ownership gives them the right to use and sell the companies and their assets. People, companies, and countries aspire to be independent.

The other view respects the earth, life and nature, which the planet consists of. This concept entails that profit can only be generated by life. Furthermore, according to this approach the economical systems are part of living biological systems, whose living assets, i.e. human beings and nature, engender non-living assets. By virtue of this capacity the living assets become veritable well-springs of profit. Moreover, this concept is based on the view that in a healthy world, profit needs to serve life; hence the profit generated by companies should support and sustain life.

The ways in which companies handle their responsibilities are crucial to the future of the planet. The immediate,

serious global climate situation is a result of all individual and shared decisions, including corporate decisions. The factors that influence the global climate need urgent attention. It is also imperative to address the attrition in the workforce. Long-term leadership and development need to be implemented in a world used to short-term planning. The economic market forces operate and take effect within limited time horizons, whereas a number of other phenomena and actions in the world should be considered in the context of hundreds or thousands of years. How do we get all this to form a synthesis? You might say that there is a need to develop a culture of dependence to supplant the philosophy of independence which characterizes the classical industrial societies.

The leaders and scientists of our society have themselves created and answered a number of questions as to how we can move on. The fact is that we know a great deal about the ways in which we in leadership and organizational contexts can replace the mechanical Taylor-Weber philosophy which is still our predominant paradigm. Naturally all previous tools, models, and experiences cannot be rejected overnight. On the other hand the classical old paradigm is certainly unable to address the challenges and the opportunities of the future. One of the greatest problems of the old paradigm is that it has given us material success to such an extent that it requires a lot of courage to try a new approach. Furthermore, one of our experiences is that adopting new leadership and organizational modes does not necessarily yield immediate and visible results – perhaps the opposite seems to be the case. However, research, documented practical experiences, as well as models from the field of leadership are virtually standing in line to provide evidence with old as well as new results. To name a few, Mary Parker Follett is one of the twentieth century's most farsighted management

philosophers, even if she today is somewhat forgotten. She was a contemporary of Taylor's, but her thoughts on management differed radically from his. The same goes for one of the greatest European management philosophers, Bernard J. Lievegoed. The perspectives of his theory on social, ecological, organizational, and leadership issues point way ahead into the twenty-first century and there is a clear connection between him, Russel L. Ackoff, Edgar H. Schein, Peter Senge, and C. Otto Scharmer. Half a century ago Chris Argyris formulated theories on organizations and leadership in which he stressed concepts like job expansion, job enrichment, autonomous work groups and staff participation. Moving ahead to our day and age, we can, apart from those already mentioned, point to a number of important thinkers like Coimbatore Krishnarao Prahalad, Charles Snow, Clayton Christensen, Henry Mintzberg, Howard Gardner, James G. March, John P. Kotter, Karl Weick, Kathleen Eisenhardt, Michael Porter, Niklas Luhmann, Ralph D. Stacey, Warren Bennis, Stafford Beer, Jan L. Mitroff, and Deepak Chopra – in random order.

Sustainability is an economic, social, ethical, and ecological approach, according to which the point is to structure civilization and human activity in such ways that you on the one hand are able to address society's and the citizens' needs and desires for self-expression in the present, while you on the other hand retain biodiversity and the natural ecosystems. The objective of planning and handling must be to maintain these values in the future. Hence sustainability affects all levels from the local to the global as such. In the words of the Brundtland Report from 1987, sustainability is a practice which: "…Provides people and the environment with the best without damaging the future generations' opportunities to satisfy their needs." (Wikipedia)

Life Is the Central Value

The development of a new form of efficiency is the main challenge of the sustainable society, and the promotion of sustainable corporations and societies are crucial to the twenty-first century. In a sustainable society life is the central value. A sustainable activity is characterized by the fact that you can repeat it indefinitely without damaging the natural resources. In the industrial bubble, economy and money were the central values, but when economy becomes essential, we lose the ability to find our long-term sociological and ecological orientation. Way too many activities, especially in the industrial society damage, destroy, and annihilate life. "In a world of constrained natural capital, social capital, and human capital, optimizing only return on financial capital imprisons business in the shadow of a distant past…" (Senge et al. 2008). However, in agreement with many other researchers, we now contend that profit must serve life and not just itself. Our decisions must serve life on the planet and be economical in the sense that they should be founded on conscious calculations, while the long-term goal should concern life on earth. The overall and ultimate purpose of leadership should be to protect and develop life on the planet, if for no other reason than because of the unyielding and obvious premise that without life there will be no business opportunities. You cannot have a fishing industry if there are no fish. In a 2007 report the IPCC (Intergovernmental Panel on Climate Change) pointed out that the industry is catching 250% in excess of the yield the oceans can produce in a sustainable way. As Senge comments: "There can be no 'system' without the human actors who inhabit it and take the actions that bring it to life. Put differently, how the system works arises from how we work; how people think and act shapes how the system as a whole operates".

Education and a New Company Concept

The opportunities for improvement are enormous and our prospects for development and making responsible dispositions with regard to the planet's resources are a function of our ability to perform management and leadership. Management and leadership are the single most important factors in terms of attending to the future of the planet. The sustainable society will not be self-constructing. We must educate ourselves to be ready for this task. We must develop and share concepts about the sustainable society. Education begins with children and parents, it continues in kindergarten, at school, and at university, and is further developed in the corporations and their practices. The corporate world will eventually play many and significant roles, when sustainability is implemented on a large scale. Our democratic standards and practices will obviously also undergo developmental changes in the years ahead, but we cannot assume and expect that the politically elected leaders will be able to create, formulate, and attend to the great number of ideas and challenges this development will entail. Individuals and companies will need to contribute to a much greater extent. The sustainable society will be intimately associated with a new image of the responsible company, with conscientious leadership and ownership, as well with the conscientious co-worker and consumer. Democracy as well as market economy must be developed. The reason may be illustrated by Korten, who is perhaps more right than we care to know:

The democracy, however, was more a democracy of money than of people, and the markets were only truly free for corporations and big investors. In its actual expression, market freedom means that corporations are free to do whatever they like. People are free to buy or do without whatever products or jobs corporations choose to offer them on terms chosen by these corporations.

Companies, co-workers, and consumers have great opportunities to change this issue voluntarily. Many go ahead and do so, however, there are still significant imbalances, which point to a necessity for more national and international regulation, a need for a change in the consciousness and decision processes of corporations, consumers, and co-workers.

Living Assets

The essence of a new management theory should be to attend to living assets, or living asset stewardship (LAS), a term coined by Bragdon in *Profit for Life*. The crucial feature of this theory is the distinction between living assets (human beings and nature) and non-living assets (capital). Naturally both are required. However, as opposed to a widespread view, we think that living assets are more important to the corporate world's productivity, value creation, and long-term success than non-living assets. The explanation is quite simple. Living assets are the source and the prerequisite for non-living assets. Money capital and non-living production capital cannot exist and function without people and nature. Our most intelligent machines, including super computers, cannot function without human

support and knowledge or without nature. In his definition of living assets, Bragdon combines humanity and nature, and in this context he refers to the biologist Edward O. Wilson's concept of biophilia, which is an expression of the fact that "people have an instinctive reverence for life and nature ... We take care of the things we value most". In the light of this concept we can define living asset stewardship as *caring about people and the things people care about.* We could even go a step further and apply Wilson's biophilia concept to LAS and define it as *respect for life.* Attending to a sustainable issue would in this context translate to *"a more disciplined, systemic caring that looks to the general health of the larger world (society, markets, and the biosphere) in which we operate. Deep caring exists when we look beyond the end results of our actions to the processes we use to deliver those results"* (Bragdon 2006).

Views on Life and Human Nature

Cynics would argue that references to companies and societies based on principles of sustainability, partnership, and other new or higher principles are idealistic nonsense because Mother Nature created us as violent individualists incapable of cooperating to reach higher goals. Such cynics, who might even call themselves individualists, overlook the fact that humanity's so-called nature encompasses many potential aspects. Moreover they only look at the characteristics which are immediately apparent and ignore the higher objectives. "It is our objective to actualize these higher-order possibilities. First, however, we must acknowledge their existence", says David C. Korten. Considering the changes the world has undergone throughout the last 150 years, it is not difficult to imagine a world where such issues, which David C. Korten calls Earth Community Principles, are far more developed than today.

Earth Community Principles can, according to David Korten, be defined in the following way: *"Life is supportive and cooperative; humans have many possibilities; to create order through partnership, to cooperate and live, to love life, to defend the rights of all, to create gender balance".* This contrasts sharply with the assumptions and principles which we to a great extent develop and practice today: *"Life is hostile and competitive, humans are flawed and dangerous, we promote a dominator hierarchy, we compete or die, we love power, we defend the rights of the self, we have masculine dominant attitudes".*

Global Common Denominators

In this context it is interesting that Joseph Campbell, who did research on mythology, already in the 1980s published a book *The Power of Myth* in which he wrote that on a global level we lack basic inter-human connections that create bonds; we lack images of a holistic global mythology: *"Every mythology originates from within a certain delimited society. It encounters other mythologies, blends with them, and then a more complex mythology emerges. However, today there are no borders. The only valid mythology today is the mythology of the planet, and such a mythology does not exist".* Perhaps the crises, the pros and the cons of globalization on the one hand, and the climate crisis on the other created a pressure that inspires us to find new common denominators or new mythologies. Perhaps the positive and negative challenges we are facing call for agendas and concepts which express coherence and unity. We must look for transpolitical, transreligious, and transcultural frames of reference, which the great majority of the globe's population could support – for instance the planet, shared responsibility for life and sustainable processes, etc. *"Growing up in a culture, a view of the world is instilled, and this perspective shapes our mind-sets and way of life.*

Among other issues cultures encompass concepts and images of what a good and meaningful life is and how to achieve it. Not all images are equally suited as vehicles to get a meaningful life", says Cecilie Eriksen in *The Meaningful Life.*

C. Otto Scharmer's *Theory U* is an exciting model of a holistically oriented frame of reference. As a creative process or an educational journey the U model encompasses a synthesis between past and present, between time and eternity, and this is presumably one of the reasons that the book on the Theory U in general has had a good reception characterized by comprehensive interest and commitment. The Theory U consists of clear cut segments, which in a long-term perspective ideally participate in the creation of a new global mythology. The Theory U is basically structured as an educational journey, which is also constructed as a variation on an intercultural phenomenon – the so-called rite of passage. A rite of passage is a ritual that links important events of transition and in the process creates profound bonds between the individual and the cultural mythology.

The similarity between Theory U and the classical rite of passage encompasses some exciting potentials and elements. First of all the important cultural archetype of passage is no longer associated with magic and belief systems, but with the scientific approach of the twenty-first century. This becomes abundantly clear in the conception that via Theory U it will be possible to create a unifying theory and practice in processes involving first, second, and third person issues. *"It is about time"*, says Scharmer, *"that the social sciences come out of the shadows and establish an advanced method which integrates science (the third person perspective), social change (the second person perspective), and the development of the self (the first person perspective) and create a unified framework of research into how we take action. This type of research should be based on the personal consciousness"*. This also means that we as people and

cultures perhaps already have many resources and much implicit knowledge in these areas. Across the board of cultures and religions we have inherently much more knowledge about what such practices and U processes are and how they unfold.

The Human Being First

As mentioned in the introduction, it is now 100 years ago that Taylor expressed his views. Since then an incredible development has taken place. If we take a look at the present day Danish business community, then we will find many examples of applied science in leadership – techniques, tools, implements, and systems. Above and beyond these issues we will to an increasing degree also see what Taylor saw: inefficiency. However, it will be a new type of inefficiency. Taylor recommended that systems come before people. Yet all the activities and processes that take place in the corporations have changed significantly since then. Services, products, and processes have undergone changes. As a result, the complexity, which characterizes the corporations, has changed and increased significantly – not just because of the technical procedures, but because of the increased and changed roles which people play in these processes.

Today we should invert Taylor's sentence and say: "Human beings should come before systems". This might easily be misunderstood as an empty phrase, but nevertheless we could probably find one of the main explanations of the new inefficiency prevalent in Denmark (and in countries that resemble Denmark) in this approach. Our present challenge is comparable to the challenge which Taylor's contemporary society faced. We cannot copy and paste knowledge derived from our original universe of experiences, which we naturally carry along with us. We must revise this universe.

CHAPTER 3

Dynamic Elements in the Mosaics of the Future

This chapter concerns the segment of management literature which in later years has contributed some creative elements to the leadership mosaics of the future. In this chapter we discuss a number of books and authors who have inspired us – some of the world's leading theorists such as Senge, Goleman, and Scharmer.

Keywords: paradigm shift; learning; emotional, social, and ecological intelligence; profit for life; creative intimacy.

A Paradigm Shift in Management Literature

In the field of management literature the recent years have seen a number of books with remarkable and important angles on management and organizational development. To mention a few titles *Love Leadership, Mindfulness, Emotional Intelligence, Presence, Resonant Leadership, Profit for Life, Theory U, The Necessary Revolution, Ecological Intelligence,* and *The Empathic Civilization.* These titles represent a broad range of books that span a continuum from soft artistic, philosophical, and existential angles to the more hardcore scientific publications based on economy, sociology, neuroscience, psychology, and organizational theory.

Already in the last couple of decades of the twentieth century there were, as mentioned, explicit tendencies that inaugurated the changes we now see expressed as a focus on sustainability, a holistic view of the individual human being, and the resources lodged in emotions and awareness. The milestones of the first phase of this new wave are, among others, Peter Senge's book *The Fifth Discipline* from 1990 and Daniel Goleman's *Emotional Intelligence* from 1995. In the wake of these two books sprouted a veritable undergrowth of tendencies and publications characterized by inclusion of the so-called soft areas like psychology and neuro-linguistic programming (NLP) – even astrology was mentioned.

In the first decade of the twenty-first century this momentum developed to a much more comprehensive and profound impulse. The new message is *cohesion, respect for life, meaningfulness, and sustainability*. The cohesion refers to the individual's links between brain, heart, and body, mutual interdependence and synergy between people, and co-responsibility for nature and our shared planet. The central theme in these publications is the desire to act from the heart, to perform leadership from the heart. The most important books which we introduce and discuss in this chapter have been a significant inspiration to us. They are written by authors who share the same approaches as Peter Senge and Daniel Goleman. However, many other European and American authors, as well as writers from the rest of the world, have made important contributions to the discussion.

In our choice of books and authors we have emphasized the fact that they should highlight central approaches and frames of reference, which in our view are crucial to the paradigm presently taking shape. Many other voices have contributed to the debate, but the ones we have selected have repeatedly, and in a multitude of ways, been trend-

setters in their field for a number of years. Senge and a number of scientists and leadership practitioners in his circle have, since the beginning of the 1990s, researched and developed organizational learning, sustainability, and respect for life. Daniel Goleman and a range of researchers and practicing leaders in his network have focused on the new knowledge emerging from neuroscience and psychology, especially with regard to the individual human being, inter-human processes, and working life in a broad sense as well as organizations and leadership.

Peter Senge. From Learning to Revolution

In 1990 the 43-year-old Peter Senge gained worldwide recognition, when he wrote his book *The Fifth Discipline*, which has been published in an enormous numbers of impressions and translated into many languages. It deals with the theory and the practice of the learning organization, and Senge's fifth discipline answered an enormous need in many parts of the world. It was a completely different day and age, and the world was characterized by great hope, significant growth, and optimism. Even if times have changed, it is our contention that the basic concepts and approaches represented by the fifth discipline, are important and valid for many of the theories and contributions which have subsequently come into vogue, for instance the books we discuss in this chapter. The purpose of the tools and ideas presented in this book is to destroy the illusion that the world consists of separate disconnected forces. When we abandon this illusion, we can begin to build learning organizations. According to Senge, learning organizations are possible, because basically we are all learners. In the introduction to the book he defines the concept of a learning organization. It is an organization in

which human beings continually expand their capacity in terms of creating the results which they really want to create, in which new and expansive mind-sets are nourished, where collective aspirations are liberated, where individuals constantly learn how to learn collectively. A basic issue is to acknowledge that corporations and human development are in fact systems, that they are interlinked in invisible patterns of mutually connected actions, which often take years to develop their reciprocal influence. We tend to find this difficult to understand and for this reason we often focus on isolated parts of a system and wonder why we never seem to solve our most profound problems. In other words, the fifth discipline is the systems philosophy and it gathers and integrates the four other disciplines into a holistic theory and practice. The fifth discipline continually reminds us that the totality is greater than the sum of its parts.

The four other disciplines are:

Personal mastery: This concept signifies commitment in the context of the individual organization, including the relation between personal development and the learning of the organization.

Mental models: This notion refers to our attitudes and work with the preconceived assumptions, views, generalizations, and images, which are significant in terms of how we understand the world and act in it.

Shared visions: This concept describes the effort to create a shared image of the organization and its future.

Team learning: This idea concerns our endeavor to discover the extraordinary shared capacity for taking action, when our collective heterodox intelligence is liberated.

Senge published several books in the 1990s and in 1997 he was the prime mover in the founding of the Society of Organizational Learning (SOL). In 2004 he co-authored the book *Presence* with three other writers. During the course of five years the four authors met regularly to discuss innovation, learning, and leadership. They explored how basic changes take place. In the book the dimension of the present moment and being in touch with your feelings are crucial elements in their deliberations as to how creativity is generated. Furthermore, they discuss how to facilitate what they call real change, i.e. innovation that really takes effect. The book is idealistic and visionary, and it is characterized by a very concrete dimension; that is to say the connection to practical reality, as experienced by the individual in smaller or larger groups, in organizations, and especially on the blue planet we share. On the one hand the book expresses great concern and anxiety for the globe − our shared responsibility for the totality and the future. On the other hand it represents constructive ideas and concrete action plans with regard to the ability of groups to cooperate as well as in terms of providing learning and development for the individual human being. "At the end of the day the only thing that could make a difference would be a change of the human heart", the authors conclude.

What would the world look like if we learnt − individually and collectively − to access our most profound capacities to sense and create the future? How do basic changes occur? Where do they originate and how are they created? Such questions are discussed in the book, whose conception among other issues is based on interviews with more than 150 leaders, scientists, and artists. These interviews focus on questions like: How do you get new ideas? Which questions are essential in your line of work? What constitutes inspiration in your reality and how is it transformed into

practice? From which levels of consciousness do you derive cognition and get inspirational ideas? The questions are the drivers of the book and we stress them here because they seem to characterize our new challenges and hence the pivotal points of the new types of leadership.

Presence by Senge et al. represents a holistic view of humanity and the globe, and moreover it embodies an optimistic concept that untold potential and opportunities exist if we would only pay attention to them and seize them. *Now.*

In 2008 Senge et al. published *The Necessary Revolution*. A revolution – a paradigm shift – is in the making, represented by contemporary concepts of organizations and companies. This revolution is, among other issues, manifested in the books we focus on in this chapter. In *The Necessary Revolution* the authors demonstrate how companies worldwide have begun to replace outmoded "business as usual" mind-sets with completely new strategies for a sustainable future. The most innovative leaders of the world acknowledge that we, for the sake of our corporations and the world at large, must implement revolutionary changes in our personal and professional lives. Companies as diverse as Coca-Cola, Google, Nike, the World Wildlife Fund, and the U.S. Green Building Council begin to cooperate across the board in order to find solutions to the environmental and social challenges facing us. The book concludes on an important note: "In an interconnected world, it doesn't matter whose end of the boat has a hole. There are no 'good guys' or 'bad guys' – we are all responsible for our core sustainability issues: food, water, energy, waste, and toxicity. And every one of us has to be part of the solution".

The Necessary Revolution is a book which contains very important messages to all of us. Revolution is a strong word. Hence the concept of a *necessary revolution* is an even stronger amplification. We cannot emphasize enough that

decisive and drastic measures must be taken if we want to save the world. Senge et al. find these themes urgent. His project is global and his book is characterized by a serious attitude. One could perhaps say that the learning organization did not work fast enough. "Today's problems come from yesterday's solutions", Senge stated in 1990 in *The Fifth Discipline*, and if such a course should be changed, then we need to find new solutions and think in radically different ways. We have done so, but not to a sufficient degree and with adequate speed, hence Senge's present comment is: "Doing nothing is not an option". Here he speaks about the large-scale perspectives. "This is the current state of the world. However, since 1990 the world has become much smaller. Obviously we all influence the globe and we are in turn influenced by it. Hence the revolution mentioned also concerns me and my short-term thinking and behavior".

Many companies worldwide have learnt the lesson that if we want to save the world, then companies of every conceivable kind must share the responsibility – and every individual amongst us must assume co-responsibility. In fact that is the main theme of the book. It conveys extremely serious and profound messages to us, but at the same time it is a book filled with light and optimism.

In comparison with Scharmer's *Theory U,* Senge's *The Necessary Revolution* is actually a kind of case book, even if Senge does not refer directly to *Theory U. The Necessary Revolution* is the practical Theory U book in the sense that it refers to a wide range of companies worldwide, which today operate with a high degree of social and environmental responsibility. However, the book is much more than that.

It is also a book which focuses on theories and concepts and in extension of the U Theory it propones a new approach

to organization and leadership. The book is an important link in the development of learning and leadership in public and private companies, including political contexts from government to regional committees and municipal boards. Significant decisions are made by all these bodies and, according to Senge, they now need to make other decisions, and apply other delimitations and criteria for such decisions than we are used to. This is a defining moment, because when all is said and done, the long-term perspective involves a transformation of the capitalist system, a transformation of the market economy with all of its many flaws to a more civilized and sustainable economy. Even if there is a long way to go, *The Necessary Revolution* actually compounds a number of extrapolations that hint at the characteristics of the new sustainable society. Senge, his co-authors, and many others apply prognoses, trends, and phenomena to support their argument that change is urgently needed.

Daniel Goleman. From Emotional to Ecological Intelligence

Like Senge, Goleman was catapulted to international fame when he published *Emotional Intelligence* (1995). Subsequently Goleman has published a number of significant books: *Working with Emotional Intelligence* (1996), *Primal Leadership* with Boyatzis and McKee as co-authors (2002), *Resonant Leadership*, also co-authored with Boyatzis and McKee (2005), *Social Intelligence* (2006), and most recently *Ecological Intelligence* (2009).

When *Emotional Intelligence* was first published in the USA, the book received immediate acclaim, and it soon reached the top of the charts. It was the first comprehensive model that suggested that an alternative agenda involving the human psyche was in the making. Like Senge's *The Fifth Discipline*, Goleman's books supported a trend which

differed radically from the momentum of all the other publications of the decade. In the book Goleman critiques the received concepts of intelligence. He stresses the significance of emotional intelligence, which is founded on qualities like self-knowledge, perseverance, motivation, sympathetic insight, sense of occasion, and self-control. Goleman's research shows among other things that these qualities characterize people who excel in their lives, whose close relationships function well, and whose performances in the workplace are above average. The same people are also characterized by independence and self-discipline, love and compassion for their fellow human beings, essential traits for the development of life and society. The book has no doubt had wide-ranging significance and in terms of influence it is considered a landmark. Several of Goleman's later books expand the central issues in *Emotional Intelligence.*

A few years ago Daniel Goleman cooperated with Professor Richard Boyatzis and Executive Chairwoman Annie McKee. In a joint effort they published the book *Resonant Leadership* with the interesting subtitle *Considerate and Thoughtful Management*. The book explores the concept of developing a close rapport. When focusing on people who spend time together for instance in a family or in a company, the concept of resonance is essential. If a leader has a good rapport with his employees and vice versa, if the people in a project group or a leadership group are on the same wavelength, then the group and the leadership will be strong. However, if there is no such feeling of being on the same wavelength, the group is weak and the company will be weak. This ratio is usually almost 1:1.

It is not about technology; more precisely it concerns emotional experiences and relations between people. Hence it is not surprising that Goleman also talks about resonant leadership. The Latin word *resonare* means to resonate, to

evoke a response. Resonance is an amplification or extension of sound by reverberation. The human analogy occurs when two people are on the same emotional wavelength. Hence the expression *resonant leadership.*

The book is rounded off by a quote from Goethe. The authors state that they have not been able to find a better abstract of the message they wanted to convey than Goethe's words: "You should start on the projects you can realize or dream you can realize! Audacity attracts genius, power and magic".

It goes without saying that leadership and the concept of resonance are closely associated, since leadership basically involves inter-human relations. Leadership concerns the fact that human beings create results together. The book also contains the following sentence: "People who think that they can become really good leaders without undergoing personal change, fool themselves. You cannot inspire other people and create the resonant relationships that develop fantastic results in your family, organization or society without feeling inspired and working on becoming the best person you can possibly be. You yourself must be the change you wish to see". Leaders lead and show the rest of us the way. The apprentices learn from the master. It was always thus and hopefully it will continue to be so.

Social Intelligence

Daniel Goleman defines social intelligence as social attention combined with social skills. Social attention involves empathy, the ability to harmonize with your interlocutor, empathic accuracy, and social cognition. Social skills encompass the ability to harmonize with other people, to represent yourself in an appropriate way, the ability to gain influence and feel sympathy. Social relations are much

more effective and significant than previously assumed. My relations to other people are lodged in my brain and in my heart, where they are represented by tracks and patterns. There are consequences and opportunities, and they are reflected in the structures of my psyche. Social relations not only exist between people, they leave traces inside us. This is one of the reasons that leaders are so important. Stress is one of the most serious and widespread illnesses of our time, and it occurs in organizations and in societies based on networks. If we should understand and be aware of this threat to societies characterized by networks and innovation, then we need to apply social intelligence. Moreover, in such societies social intelligence is also a fund of challenges and various types of potential. These are not found in individuals, but in relations and cooperative ventures between many different people of varying backgrounds, education, religion, culture, etc. As stated in the subtitle, this is the new science of human relations. If there is just a degree of truth in it, then it goes without saying that the book is fundamental to leadership by virtue of the fact that leadership concerns inter-human relations. In his book about the leadership of the future, Gary Hamel introduces a similar theme. Formulating the main questions for the leadership of the future, he emphasizes the following two challenges. How do you create an organization where every voice and every opinion are heard, and where the only competitive factor of certain ideas is their quality? How do you create what Hamel calls a democracy of ideas? The second question addresses the ways in which we ensure that decisions in an organization fully reflect the organization's collective knowledge. These sentences extend and unify Senge's learning organization and Daniel Goleman's emotional intelligence.

Ecological Intelligence

Goleman's book on ecological intelligence will quite likely contribute to a new significant agenda: complete transparency with regard to the contents of the goods sold in all kinds of marketplaces. The subtitle of the American edition of the book is *How Knowing the Hidden Impacts of What We Buy Can Change Everything.* If we as human beings and consumers were aware of the effects on the world generated by the products we buy, then everything could be changed. In fact Goleman has for many years circumambulated the subject of ecological intelligence. Ecology concerns Mother Nature and her long-term development. It stands to reason that Daniel Goleman, in the midst of perhaps the most serious economic and ecological crisis ever, should publish a book on ecological intelligence.

The subject will be discussed and explored worldwide for many years to come. On the one hand we have millions of corporations which make many extremely important decisions about products, development of products and processes, investments, etc. On the other hand we have billions of consumers, who on a daily basis make decisions on voting for or against the investments, innovations, and products in question. One could almost characterize this segment of the population as a democracy of consumers, even if we are not yet there by a long shot. However, we are moving on from what we could call hidden impacts to what we might call transparent contexts, causes and effects and that is the first step on the road to a much more conscious consumption mode. Goleman enhances a theme which many have perceived and discussed for a number of years: the fact that the international community of consumers has enormous power to select or deselect products and services. If wine consumers worldwide choose not to buy French

wine, then the impact of this decision will be felt by the French wine producers and wholesale dealers.

On one of the first pages in the book Daniel Goleman introduces the concept of radical transparency which is developed in the remaining chapters. "Radical transparency will create openness about the consequences generated by what we produce, sell, buy, and discard. This will be a challenge for most corporations". Radical transparency entails that the social and global responsibility, which consist in producing and selling ecologically sound products, becomes an increasingly successful business. "Make goodness pay", the slogan goes. Eco transparency leads to another business model in which economically advantageous issues blend with aspects that are socially and economically sound. In their own ways, Bragdon and Senge discuss new types of business models which include social and environmental responsibility as integral elements in the business model.

We visualize that radical transparency can become extremely important to the development of the planet. Industrial ecology is mushrooming as a central field of research, but also as a practical leadership theme of great significance. Radical transparency could be the third path, as described by Goleman towards the end of the book. One way is the political economist Milton Friedman's ultraliberal approach: the social responsibility of corporations is to increase their surplus. Another way is promoted by the philosopher John Rawls, who focuses on a moral basis of the corporation's social responsibility. The moral basis can be emphasized through various types of legislation. The third way is the spiritual and radical transparency, and the attending responsibility and consciousness.

Joseph Bragdon. Profit for Life

Bragdon is associated with the previously mentioned Society of Organizational Learning (SOL) and he is part of the Senge circle. *Profit for Life* is a book about two cultures, two corporate concepts, and two views on capitalism – an exploitative death capitalism versus a life and survival capitalism. This is an important book, which points to new theories and concepts pertaining to corporations and leadership.

The basic contention of the book is that profit is generated by life, hence the profit created by companies must support life. Corporations who understand this and perceive themselves as part of nature and society develop and bloom because they inspire people to work with their hearts as well as their brains. Bragdon, who is an economist and a financial analyst, expresses himself in crystal clear terms and he has empirical evidence for his statements. In fact he has studied corporations around the world and found that his ideas about management of living assets as a new management paradigm are sound. The essence of a new theory about leadership should be to attend to living assets – a concept defined as *living asset stewardship* by Bragdon.

A section of Bragdon's book is entitled *How to Recognize a Company with Heart.* The following question might come as a bit of a surprise. How do you identify a company whose orientation and actions come from the heart? "Why the heart?" Bragdon asks, and he answers that many people associate the heart with soft feelings, which impede the clear concise thinking needed to make unambiguous business decisions, and give the latter process second priority. "But nothing could be further from the truth", he says. And we might add that the brain by itself is too simple a tool for orientation in the world, for decision making, for selecting

ways, means, and goals in an extremely complex and chaotic world. More is required, and this "more" is the heart.

In this context Bragdon refers to The Institute of HeartMath in California, which is discussed elsewhere in this book. In this institution comprehensive heart research is carried out, for instance projects that explore the distinction between coherence (correlation) and stress in corporations. In corporate scenarios coherence is a condition where people are mentally, emotionally, and physically associated with what they do and with what happens in the company. In accordance with the way stress is defined in this context, stress occurs when no such sense of coherence is experienced by the people who work in the corporation. Here we most likely have yet another source of profound understanding of some of the enormous problems which characterize many of the public and private corporations of our day and age.

As mentioned, Bragdon's ideas are based on empirical evidence, but they are also speculative and bold. He does not apply simple tools or directions, but thoughts, concepts, arguments, models, and scientific results. Leaders and corporations should pay attention to his ideas – first and foremost because he can prove that there is a positive correlation between the soft approach to leadership and development, and the positive economic results of the company. There are strong indications that even in the existing flawed market economy it pays to behave well as a company. One of the explanations could be that the consumers, buyers, suppliers, and other interested parties have such high levels of insight and transparency that companies who behave well will be rewarded by the various active partners.

As we know, Bragdon discusses the concept of living asset stewardship (LAS). We rarely use the expression "steward",

but it is associated with the old concept of the bailiff and foreman who attends to and manages a business or a farm. A corporation has two types of assets or capital: living and non-living assets. Living capital is human beings and nature, and non-living capital is buildings and machines. "LAS", the author says, "is the core of an emergent new theory of management". Likewise Bragdon defines a living asset management performance-index, or a LAMP index, which he uses to explore and compare corporations. These interesting comparisons clearly point to the significance of the management of living assets. Living asset stewardship is a key concept which should be incorporated into management theory, leadership standards, and practices. This type of leadership is based on two basic assumptions: profit can only be generated by life, and in a healthy world profit should serve life.

Otto Scharmer. Theory U and Presence

In 2007 Scharmer published the much anticipated book *Theory U*, which was closely related to Senge's *Presence* (2007). *Theory U* is a book about the present from the perspective of the future. Leadership is performed on the basis of an understanding of the past and the future. The essential element is the creative intimacy in the conscious and creative here-and-now encounter between constructions of the past and the future. *Theory U* describes a social technology, which deals with transformational changes, which will help leaders meet the challenges they face. The subtitle *Learning From the Future as It Emerges* entails that Scharmer sees two different sources of learning: learning based on past experiences and learning based on future events as they materialize. This is an essential part of the new mind-set, which the Theory U represents. The

book describes a significant interpretation of the society and the mind-set that can replace the industrial society. Moreover it formulates social insights and methods that can help us develop the societies and corporations of the future.

Listening is one of many important concepts in the book on Theory U, according to which there are four types of listening:

1. Uncritical downloading, i.e. listening with all my prejudices and habits. I hear what I want to hear.

2. Active listening. Being aware of the differences between what I expect, and what actually happens and/or is said.

3. Empathic listening, thereby directing your attention to the other person and sensing what the world looks like to the other person.

4. Creative listening, i.e. listening to all the things that arrive from the future. The precondition is that I apply my heart and my will to connect with the highest future potential I can possibly imagine, that means exploring the meaning of life and enhancing it with attention and energy.

Individuals as well as corporations have two distinct identities: an historical identity and my own highest future potential. I can nourish my own prospective growth and we can nurture our corporations' highest future potential by paying attention to our personal development. Through management attention we can synchronize our development with sustainability and assist in its growth. In fact that is the goal of good leadership. We must develop clear concepts of our own highest future potential and nourish these images. Moreover we must manage and navigate in our own lives and corporation in such ways that these potentials can be realized.

Many leaders and CEOs have read the books *Presence* and *Theory U* with great interest, commitment, and an intuitive sense of the potential represented by this world picture and mind-set.

The readers respond with enthusiasm and joy, which on the one hand can be interpreted as an expression of the pressures experienced on individual and global levels, and on the other the numerous new opportunities sensed by many readers of the two books.

Another reason that the Theory U has been received with such comprehensive interest and commitment might be that the theory is basically integrative and holistically oriented. The fact that it integrates the organic-systemic approach with the mind is an important step. It is also significant that the U model as a journey of learning contains a synthesis between past and future. This involves clear elements that can be part of the work of creating a global mythology. We see that the U theory in its basic shape as a journey of learning is also a variation on the theme of the rite of passage. The U shape is also known from depth psychology, for instance in the context of "the mirror" in the psychology of death and rebirth. Furthermore there is a structural resonance between the U shape and the ordinary life processes. In fact the U mirrors the movement which we all traverse every night, when going to sleep. After a day filled with the usual chores, we undergo a transition to sleep, in which the personality structure of the self relaxes and loosens up. We suspend and redirect diurnal impulses and let go and embrace sleep and timelessness at the bottom of the U. In the morning our energy is renewed, we reassemble our personality (crystallization), reality arrives and a new day begins. You could say that in such a sequence we encounter what one could call the implicit U structure.

Perhaps the U structure and the central elements in it are expressions of the basic life processes.

In this context it also makes good sense to interpret the U configuration as a parallel to the classic rite of passage, a situation which links important events (baptism, confirmation, marriage, burial, divine service, pilgrimage, etc.), through which people connect with their cultural mythology. In short a rite of passage unfolds as follows. It progresses from the *reality of ordinary life* to *the passage*, the way out (past sentinel and resistance) to *the sacred*, where the holistic link is confirmed. Here a creative fertilization is followed by a *passage* home (past sentinel and resistance) and you return to *ordinary reality* with renewed life force and inspiration.

Figure 4: Scharmer's U

The initial phase

The final phase

THE PROFANE LIFE

this world

the other world

separation phase
TRANSITION OUT
letting go

liminal phase
THE SACRED
open to the wholeness

reintegration phase
TRANSITION HOME
letting come
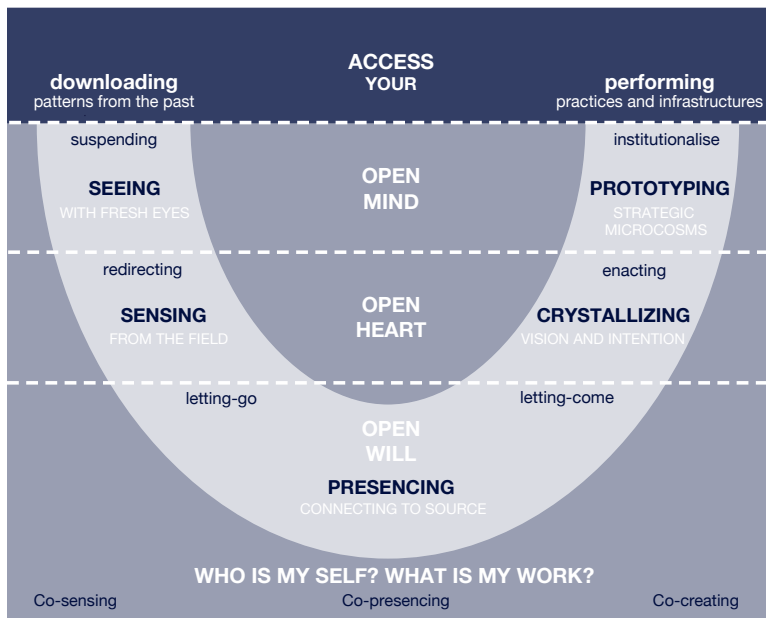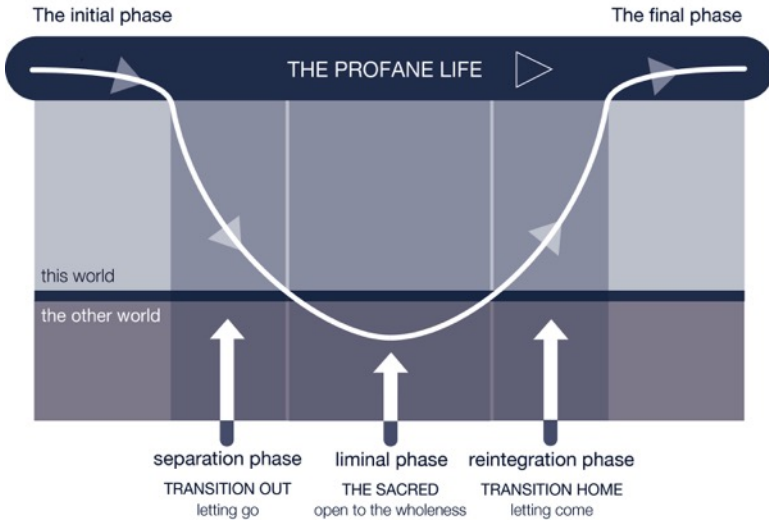
Figure 5: Rite of passage model

As demonstrated, the process of a rite of passage resembles the basic structure of the U form. This opens up some potentially advantageous perspectives. First of all, an important cultural archetype is lifted from a context of religious belief and magic into the light of the scientific paradigm of the twenty-first century. Throughout the entire book *Theory U* the author describes the creation of a unified theory and practice concerning first, second, and third person processes. Secondly, this means that people and cultures already have many resources within this area. In short, we know much more about what and how such events and processes unfold than our practice would suggest. Thirdly, elements of a future global mythology can be found in this process.

Scharmer's ambition to create an integrated social science theory and practice is important and laudable. In the field of leadership there are many diverse experiences with second and third person perspectives, but precious few experiences stem from the first person perspective. In this context a first person perspective should be understood as a differentiated description of internal processes and a practice of consolidating a center in the mind of the individual human being.

Many people who work with the U theory immediately respond to the theory as a new technology and a new model that can be implemented in the same way as the classical, rational leadership models of old. However, the opportunity for profound change on individual as well as on organizational levels suggested by the U, could encourage us to develop a more nuanced language describing these internal processes, including an awareness of the possible vulgarization, which might slip in, when negotiating partially uncharted territory. *"Language helps to create my world and, as Wittgenstein would put it, the limits of my language are the limits of my world"*, says Ken Wilber. Hence it is important that we during the first phase of the testing of the U, consistently discuss and qualify what is actually happening and not happening. Linguistic expressions and concepts must be created to enable us to describe these processes adequately. Simple and clear internal disciplines must be constructed, since they are the necessary precondition for accessing the deeper levels you reach, when descending the left side of the U. Experiences from the spiritual traditions show that in order to maneuver in the deeper structures of the mind, you need a solid comprehension of this internal landscape. In *On Becoming Aware* Francisco Varela states: *"Regarding the suspension and its follow-ups … you tell yourself to suspend your prejudice. However, it will take a lot of training before you're able to stabilize the suspensive attitude on your own"*.

The individual aspects of the U model as a whole are associated with and describe the feedback mechanism we define as sustainability. On a practical level this happens when we listen to various aspects of one or more living systems of which we are a part at a given time. In the U model in Figure 4 "Downloading" is not listening to feedback. "Suspension" – to suspend – is to ask candid questions in your surroundings, for instance among your colleagues and co-workers, and listen to what they say. "Redirection" – to redirect – is to contain the resulting information truthfully and to see the situation from the other person's perspective. "Letting go" is to release your hold and let go of the individual control and regulation, to sink into a collective sincerity – to open up to the highest future potential, which carries the embryo to issues that are needed by, for instance, the organization, the company or the family. This awareness should be active on all levels and listen to the surroundings (colleagues, co-workers, the totality that needs the system to listen to its own signals), in short, know the feedback structure of your own system.

Concerning the start of the learning journey of the U, it is important to be realistic with regard to how slowly the individual and the collective adapt to new ideas and opportunities. The act of opening the mind, the heart, and the will, and embracing the attending qualitative opportunities for introspection, also involve resistance and less attractive aspects. Moreover, it is important to know that the first counterbalancing move is to be aware of this issue. Above and beyond being extremely creative, human beings are also creatures of habit, and it is the nature of habits to resist change. The nervous system, the memory, and the routines are based on assumptions. On the threshold to new and unexplored states of mind, various types of resistance occur. The first phase "Open mind" concerns the resistance associated with prejudices against

the unfamiliar or the unknown. The second phase "Open heart" is the resistance associated with being unprotected and vulnerable, and the third phase "Open will" concerns the fear of disappearing or being overwhelmed. In the context of changes there is likewise a basic inertia which conditions the slow construction of new habits and routines. This situation requires consistent, disciplined repetitions.

The opportunity to become conscious of habits and experiences, and to prioritize this prospect, is associated with the will to possess awareness. The freedom to choose alternative actions creates intentional latitude, an abundant source for the creation of plans, projects, and actions. This scope is intimately linked with the ability to be aware. Scharmer describes the blind spot as the principal source of all our actions.

When you investigate the awareness function, you will, according to Jes Bertelsen, Ph D., see the following:

Awareness has two directions. It is an openness which can take two pathways. One direction is extrovert, focusing on the object of attention. The peculiar aspect of awareness is that it is almost always based on something. Awareness consists in having an attentive attitude to a content. Actually the awareness is absorbed in its content. The great joyful opportunity of consciousness is that it can discover that the other direction of the awareness function is introvert, an observant introspection without a focus on an object. The innermost essence and nature of awareness is a non-representational, translinguistic, attentive openness. Just like the sun is a precondition for life and light in the external world, the source of awareness conditions cognition and meaning in the introspective world.

The U puts time, meaning, intimacy, silence, the source of awareness, and timelessness on the agenda. The U focuses on the necessity of the break, the relaxation of tensions, and openness; in short, it emphasizes the regenerative and reflexive deep breath of nature. You can use a great number of words to describe an attitude, which basically concerns a transition into openness without a great many words and concepts. We tend not to facilitate our own pathway into openness with words and rational communication. Great art and poetry are often expressions of profound cultural levels and can as such provide directions to the approach which Theory U essentially seeks to foster.

Rainer Maria Rilke provides the following guidance:

You must give birth to your images.
They are the future waiting to be born.
Fear not the strangeness you feel.
The future must enter you
long before it happens.
Just wait for the birth,
for the hour of new clarity.

Interdisciplinary Research in Leadership and Organization

On the basis of the concepts and insights presented in the previous chapters, and inspired by various researchers in leadership, we shall in the following chapters explore the opportunities afforded by a spacious workshop, equipped with all the latest tools and devices to investigate the implications of shared responsibility, life discipline, and explicit choices. The time-honored systems theories and spiritual insights teach us that a totality is manifested through a constant representation of its parts, and that the parts exist as an expression or a concretization of the totality. This is our basic premise.

Keywords: sustainability, living systems, emergence and design, holographic design, implicit and explicit knowledge.

The decision to opt for real qualities in life is by no means a natural development for everyone. In fact, it seems that everything works against precisely this choice. If we do not consciously take control of our own lives, we will always be controlled by external forces that serve other purposes. Biologically programmed instincts will for the greater part of our lives "blindly" try to force us into a number of activities, whose basic purpose is partly to maintain biological life (eating, sleeping, drinking, etc.) and partly to reproduce our individual genes (falling in love, loving, libido, etc.)… But what does it mean to choose life beyond just biological survival? It must mean to live life to the full without wasting our time

and potentials, becoming capable of expressing our own special unique humanity, while still participating intimately in the social contexts we are part of – partaking closely in the complexity of the universe.

<div align="right">(Mihaly Csikszentmihalyi, 2005)</div>

In the following chapters our approach will be more exploratory and concrete with regard to the preconditions for sustainable processes in human beings and organizations. Our central approaches and models are all associated with issues that are already happening in the daily lives of global citizens. We will begin with a short introduction to the contents of the following chapters. Chapters 4-6 concern various types of organizational totalities. In chapter 4 we discuss the general structures and frameworks of the organizations in the light of interdisciplinary research in leadership and organizations, the sustainable organization of systems, and ecological intelligence. Chapter 5, *The Brain as a Self-organizing System*, is an introduction to the brain's central (executive) role in the internal (and external) leadership processes. In chapter 6, *The Intelligent Heart*, we look at the role of the heart as the systemic center of some of the implicit and self-organizing processes that contribute to sustainability. In chapters 7 to 9 we explicate a number of questions and themes concerning leadership from the heart, gear shift, and time. Chapter 7, *The Leadership-from-the-Heart Triangle*, concerns the internal practice in relation to the self, other people, and organizational totalities. In chapter 8, *A Change of Gears and Four Fundamental Aspects of the Mind*, we discuss the implications of gear shifting, the four basic aspects of the mind and the personality (body, emotions, thoughts, and relations), as well as the ability to feel oneself. Moreover, we focus on becoming conscious of changes of any description, i.e. being aware of what happens while it happens. Chapter 9, *Time and Sustainability*,

deals with time and the role of time in the creation of balanced and intimate life and leadership processes.

> *A human being is a part of the whole, called by us the Universe, a part limited in time and space. He experiences himself, his thoughts and feelings, as something separated from the rest, a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty.*
>
> (Albert Einstein, in Daniel Siegel, Mindsight, 2010)

Living Complex Systems

As mentioned, Otto Scharmer's focus in Theory U is the development of a new social technology. We consider this book to be a contribution in the same vein, and in some aspects also a development of Otto Scharmer's Theory U and his *presencing theory*. It is our contention that corporations and societies to a great extent need such a theory and practice or such a social technology, which integrates the development of the individual human being's consciousness with the development of corporations and societies. This type of transformational social theory and practice will help corporations and societies get out of the set-ups and negative spirals characterizing many late-industrial organizations. We would like to exemplify this contention by pointing to the Danish health care system as a whole (as well as to the health care systems in a number of other countries). The system functions really well in many individual areas and dimensions, but it is nevertheless stuck or caught up in mind-sets, cultural aspects, and structural phenomena which are alien to the ultimate

purposes of these systems, that is the populations' health and quality of life. In way too many places natural feedback systems do not function or they have been invalidated. The result is an almost dramatic need for new mind-sets, new ways of organizing, leading, and cooperating or for what Scharmer calls "presencing". The same goes for the Danish primary school, if perceived as a comprehensive organization.

Let us begin by looking at a time-honored insight from systems theory and spiritual experience, i.e. that the totality exists via constant partial manifestations, and the parts exist as an expression or concretization of a totality. A living system is an organized pattern or a network of elements which are coordinated, mutually dependent, and function as a totality. You cannot divide the totality into its elements without losing essential synergy, and likewise the parts cannot be understood without a relation to the whole, which again differs from the sum of its parts. Everything is a part of one or more systems. Furthermore, biological and social systems are open systems. This means that their relations to external elements and systems are mutually influential.

Living complex systems are open and chaotic, and they follow a number of basic rules or principles.

The first principle is:

1) *Self-organization*

    The living system interacts with all the elements and components, which generate its complexity. In this comprehensive communication and feedback a self-organizing flow is created and developed over time.

The second principle occurs in two basic forms:

a. *balance*, i.e. a still greater increase in complexity (integration and harmony).

b. *imbalance* manifested either as rigidity or chaos.

2a) *Increased Complexity*

Complex systems tend to move in the direction of still greater complexity. This means that the various elements in the system in time will become increasingly integrated. This indicates that the system's complexity is increased. The continual increase of integration is also identical to the system's harmony and balance.

2b) *Imbalance*

When the system for some reason or other no longer maximizes complexity, i.e. when it moves away from harmony, integration, and balance, it moves either towards rigidity or chaos.

The system maximizes complexity by listening to, connecting, and creating coherence between its various components. In this way it creates an integrated sustainable system. When the system is in this condition the third principle applies:

3) The system will then be *flexible, adaptable, and stable*.

The system gains stability while progressing towards complexity. The complexity is not achieved via random activities, but it is increased through the balance between the continuity and the flexibility of the system. The continuity refers to the resources achieved in former conditions. Hence the continuity points to the probability that these conditions will be repeated. Continuity generates consistency, familiarity, and predictability. Conversely, flexibility refers to the system's degree of sensitivity to the conditions of its surroundings, i.e. the ability to undergo changes to new modes which involve uncertainty. In this way the ability to bring about new variations affords the system an opportunity to adapt to the surroundings.

Living systems ensure balance (homeostasis) and sustainability through varied forms of *feedback* from within the system itself and from the surroundings and the environment.

In human beings, balance (homeostasis) and feedback are located in the autonomic nervous system. The organic and

complementary rhythm between the *sympaticus* (continuity) and the *parasympaticus* (flexibility) ensures integration and harmony.
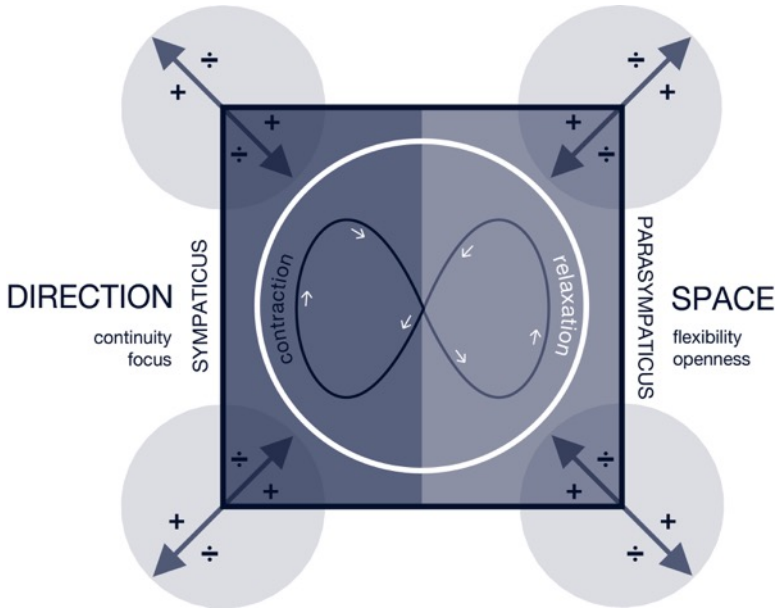

Figure 6: Sustainable balance – harmony in a complex living system

When the system is in balance, the energy flow of information and communication is organized in a continual interaction between the sympaticus and the parasympaticus.
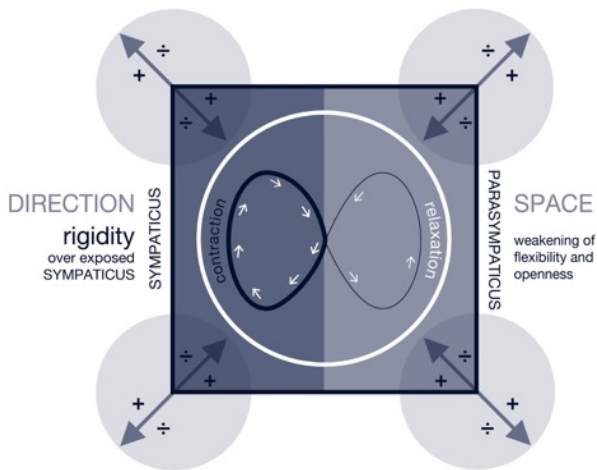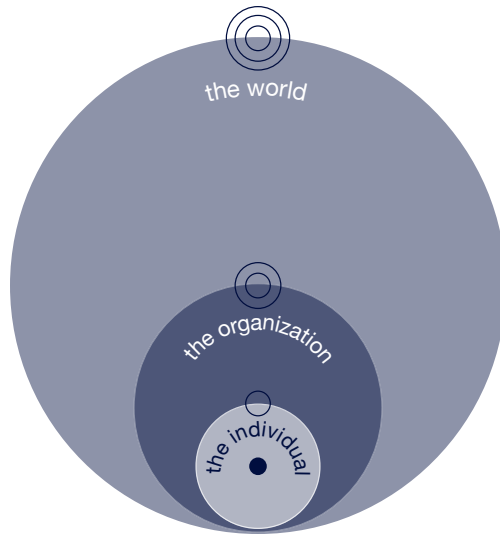
Figure 7: Imbalance – tending towards rigidity

When the system is unbalanced, the energy flow of information and communication is weakened and tends towards either rigidity (sympaticus) or chaos (parasympaticus).
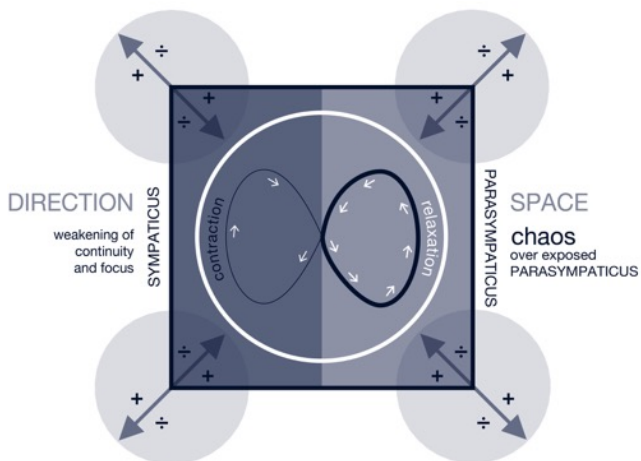
Figure 8: Imbalance – tending towards chaos

Figure 9: Living systems

In many of the types of organizations and systems created by human beings since the Enlightenment (approximately 1650-1750) the totalities do not function, among other reasons because the internal feedback and communication mechanisms between the individual elements and their connections with external systems have been severed or invalidated by rigid and inappropriate organizational structures, rewarding mechanisms, warranties, and infighting between various sectors.

The main reason is the logic-rational paradigm, including the Christian philosophy of life (…*"to bring the earth into subjection and rule its creatures large and small"*…). Nature is perceived as distinct from us, and this includes the view that for instance our body and emotions are not acknowledged on the same level as thinking and reason.

The linear logical-rational "separation" paradigm has created the Western scientific view, including the preconditions for the industrial revolution. Today we know that reality cannot be divided into sectors, like we have done, particularly during the last couple of centuries. As described above in the section on living systems, reality is a much more comprehensive entity.
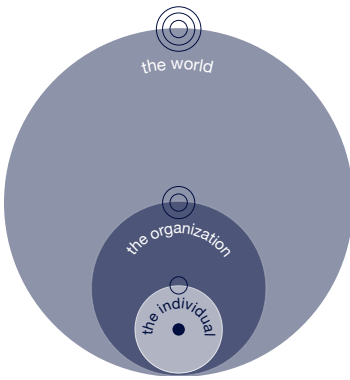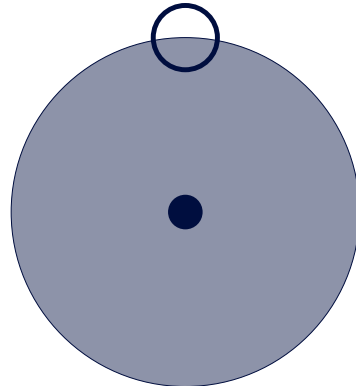
Figure 9: Living Systems   Figure 10: A living subsystem

All systems are embedded in subsystems and metasystems. A human being consists for instance of a wide range of subsystems – organs, cells, etc. Concurrently we also participate in metasystems such as a family, an organization, a city, and ultimately the planet, the solar system, and the universe. Living systems are characterized by three important traits:

- Autonomy

- Circularity

- Self-reference

These characteristics enable living systems to create or renew themselves. As mentioned, the cognition biologists Humberto Maturana and Francisco Varela call this ability *autopoesis*, which literally means self-creation or self-production. The theory of autopoesis also considers the surroundings of a given system, but insists that the connections to any environment are conditioned by the system's internal factors. This means that the perception patterns (or the matrix) of the human brain and nervous system decide how a human being perceives external reality. Maturana and Varela also question the validity of distinguishing between a system and its surroundings. They do not consider systems to be totally isolated, even if living systems are closed and autonomous like human beings. The closure and autonomy mentioned are by nature organizational. Living systems encapsulate themselves for the purpose of creating communication patterns. The big question is where one system begins and ends? Systems are like Chinese boxes. They are totalities within greater unities. The system has no beginning and no end, because it consists of a closed loop of actions and communication. Its basic purpose is to reproduce itself. The main product is the system's own organization and identity.

Maturana and Varela have developed the theory of autopoesis as an integral part of a new interpretation of biological phenomena. As a metaphor, the theory of autopoesis has interesting implications for the understanding of the nature of an organization:

• Organizations always try to achieve a closed self-referential relationship to their surroundings. They try to interpret and shape their surroundings as an extension of their identity.

- Many of the problems which organizations encounter when they work with internal environments and cultures are closely related to the kind of identity they try to preserve.

- Explanations of development and change in and by organizations should first and foremost consider the conditions which to a great extent shape the patterns that encircle the organizations as well as their surroundings.

The theory of autopoesis emphasizes the close connection between diverse forms of organizations (living systems) and their surroundings. Moreover, it highlights the actual process of seeing the organization and its surroundings as elements in a shared interconnected pattern. Complex and non-linear systems – including living systems of any kind – are characterized by various types of communication, which are ordered as well as chaotic. As a result of the internal complexity, minute random disturbances can create unpredictable processes and connections which resonate throughout the system and create changes. The particular and almost unpredictable aspect is that even when we deal with random and irregular issues, then order will emerge from this chaos. Whether we study the development of the weather, an anthill, a flock of birds, or the way in which social systems develop over time, the result will be comparable self-organizing processes. When a system is sufficiently complex, coincidences, variations, and instability will become resources in processes of change.

As previously mentioned, we discuss sustainability on three levels: 1) *individually*, 2) *socially*, and 3) *globally*. Normally, sustainability will be an implicit, self-organizing process functioning on the premise that the parts of the system, as well as the system as a whole, over time find a mutual balance. The process is manifested in an organizational framework that respects the individual parts and gives

priority to the whole i.e. the goal, the task at hand or the actual meaning of the living system, whether we are talking about a human being, a group, a corporation, or the planet. Even the fantastic circumstance that the system so to speak knows the objective and gives it first priority is an expression of the central compass and inherent wisdom of the feedback structure and the self-organizing principle. It seems that we are dealing with living systems that follow laws which we will take the liberty to call laws of nature. When we look at a human being, for instance the body including the brain, we repeatedly encounter comprehensive organizing processes.

In the history of human development a decisive shift occurs when we acquire the ability to reflect – to know about knowing. With the capacity for reflection we generate a living system of untold opportunities from our primary survival oriented self-organizing process. The ability to reflect expands our consciousness in time and space, and creates a spontaneous existential situation. We are for instance suddenly able to understand that we are mortal.

In our view the task at hand is to create societies, corporations, organizations, and groups, which reflect life's creativity, diversity, and ability to adapt. In a systemic understanding of life, living systems continually create or recreate themselves. They undergo continual structural changes, while retaining their core patterns. Understanding life means to understand the sustained processes, which are the building blocks of life. A living network responds via structural nodes, and the system selects which disturbances it wants to heed and accept, and how. Meaningful disturbances will get the attention of the organization and initiate changes. The practical leadership challenge is – in negated terms – to ensure that we do not construct systems

in the shape of corporations and societies, where these natural mechanisms cannot, or are not allowed to, function.

Basically the exercises and the challenges are to make processes of change meaningful for human beings from the outset. The point is to generate attention for a cause and inspire the co-workers to participate in the creation of an environment where creative changes are second nature. We should invite people to join processes of change and awareness building, which encourage them to think outside the box, generate new structures, and new corporate or organizational designs. We can apply the new mind-set in the process of moving from hierarchy to network, and from network to partnership and community. "The challenge is to create organizations worthy of people's full commitment", a leader recently said, voicing a crucial tenet in partnership philosophy.

Sustainability

In the book with the Danish title *Bæredygtighed, Naturen viser Vejen* (an English title would be *Sustainability – According to Nature*), Professor of Ecology Sven Erik Jørgensen describes 12 central characteristics of living systems and nature. He says that ecosystems are characterized by:

1. Following the laws of nature

2. Recycling all the elements needed by the organisms

3. Efficient and expeditious self-regulation and self-organization

4. Encompassing several functions in their components, the functions being more important than the product

5. Incorporating components that cooperate in networks

6. Great diversity

7. Open networks

8. Hierarchical organization

9. Systemic characteristics

10. Enormous amounts of information

11. Mainly identical compositions regardless of the type of organization in question.

12. Development towards greater work capacity.

Via language, humanity has acquired the ability to reflect. We are able to know about knowing. We have self-awareness and can analyze our existence in the world. The self-awareness combined with knowledge and the transformational leadership described above is crucial to the new social technology – or sustainable leadership.

The central point in the theory by Varela and Maturana, *The Santiago Theory of Cognition*, is that the process of cognition is identical to the life process. This means that life and sustainability basically concern cognition. Moreover, the two authors state that cognition occurs on all levels in life. In this context cognition is not limited to the human capacity for explicit reflection, but includes the inherent ability of all living organisms to adapt continually via the formation of structural links between themselves and the surrounding environment. Every organism is linked to the surrounding environment and is modified through interaction with this environment in order to ensure survival. The automatic exchange between a unique organism and the surrounding environment is cognition

and learning. All living systems have an inherent intelligence. The feedback mechanism of an organism equals a cumulative cognition process.
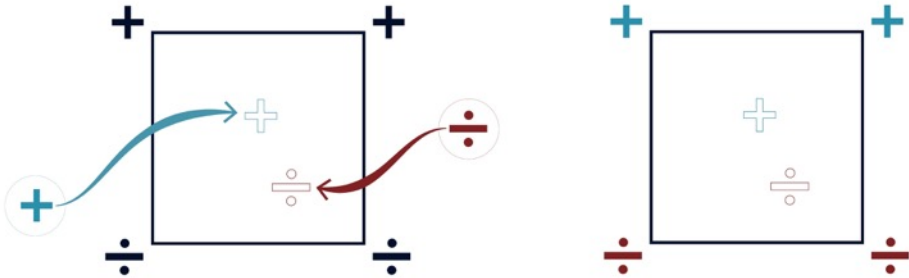

Structural modification – adaptation – due to interaction with the surrounding environment.

This theory of cognition radically contradicts René Descartes' idea about the mind as "the thinking thing". The Santiago theory of cognition maintains that the mind is a process, in fact a cognition process which, as mentioned above, is identical to the life process itself. Here we touch on the most basic aspects of the life process itself, namely the maintenance of life as a continuous process of cognition and learning shared by all living organisms, quite simply to ensure survival and learning.
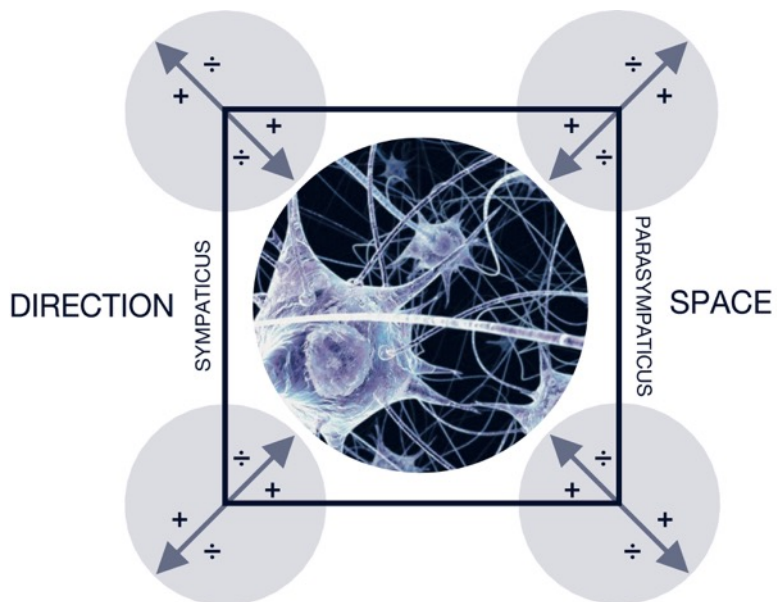
The human nervous system – interaction with the environment
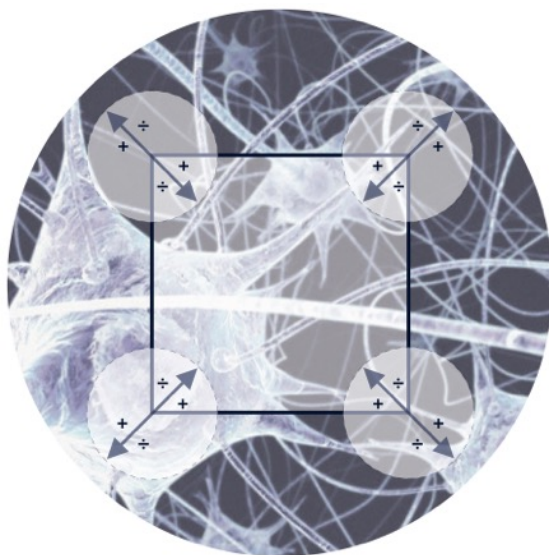
The human nervous system – the becoming of mental models

In his book *The Hidden Connections* Fritjof Capra claims that the Santiago theory is the first scientific theory that "solves Descartes' mistake":

> *The Santiago Theory of Cognition is the first scientific theory that overcomes the Cartesian division of mind and matter, and will thus have far-reaching implications. Mind and matter no longer appear to belong to two separate categories, but can be seen as representing two complementary aspects of the phenomenon of life – process and structure. At all levels, beginning with the simplest cell, mind and matter, process and structure, are inseparably connected.*

> (Capra, 2003)

When this approach becomes more specific – one of the objectives of this book – the point is what goes on in the human mind and brain. In his book *The Feeling of What Happens*, Antonio Damasio questions the use of consciousness, considering the fact that no conscious processes are needed to achieve much relevant regulation of life. Moreover, he points out that skills can be automated and priorities implemented independently of a knowing, conscious self. According to Damasio, consciousness is good at expanding the reaches of the mind, thereby improving life for the organisms that have a capability to learn, thus ensuring an overall improved stability: "Consciousness is valuable because it introduces a new way of achieving homeostasis". (Damasio, 2000)

Consciousness has the decisive advantage of being able to bridge the automatic, implicit processes and the conceptual world in which people create images and attempt to predict situations, which have not yet occurred. According to

Damasio, the conscious sense of self links the conceptual world with human pre-reflexive and automatic processes.

The link between the automatic, biological aspects of consciousness and abstract, mental functions means that individual problems get the right attention, because a concern is created, Damasio says. He suggests that the efficiency of consciousness is a function of its ability to link the biological mechanisms and thought processes, thereby creating individual concerns that "influence all aspects of thought processes, focus all problem solving activities, and inspire subsequent solutions". Hence consciousness is valuable to humanity, because it gathers information about the life of the organism on physical and mental levels.

Throughout the history of evolution the animals (including *homo sapiens*) have survived thanks to an ability to scan and get feedback from their own organism as well as from the surroundings, thereby constantly being prepared to respond in ways that could ensure survival. The living system – humanity – is so to speak always on the alert, in case something troubling should happen. You could say that the living system is implicitly concerned. The human ability to reflect explicates the feedback structure. The concern expands consciousness in time and space with the result that it becomes possible to be aware of the fact that death could come at any moment. It is furthermore possible to reflect on and plan on the basis of the nature of reality and existence. The ability to, as it were, stretch consciousness in time increases the power of intentionality almost exponentially. You can hide behind walls, armies, and weapons, and efficiently plan and channel attention and energy for groups of people a long way into the future, to the extent that it becomes possible to send people to the moon.

Ecological Intelligence and the Sustainable Organization of Systems

In his book *Ecological Intelligence* Daniel Goleman describes how a Himalayan village has survived for more than a thousand years, reproducing itself by using the resources at hand like sunlight, rainwater, and the wisdom to apply the natural resources well. The ability to form a part of a comprehensive ecosystem and maintain its sustainability over many years can be found anywhere on the globe among the diverse so-called aboriginal peoples. Goleman defines ecological intelligence as the ability to adjust to our ecological niche: "Ecological refers to an understanding of organisms and their ecosystems, and intelligense connotes the capacity to learn from experience and deal effectively with our environment". (Goleman, 2009)

Modern globalised life seems to have reduced these skills. As individuals, species, and society we all have an incipient or limited sense of the ways in which we, via our lives and habits, influence the world around us in negative (but of course also positive) ways. These days most issues are greater, more complex and comprehensive than previously, and moreover these issues change so rapidly that we cannot control the processes. We tend not to see the connection between the societal and the global crises we experience, and our daily lives and choices. However, the range of the industrial production and the consequences of our consumption and pollution reach the remotest corners of the planet. We are consuming and polluting – locally and globally – at a pace which by far exceeds the planet's sustainability. These threats require that we develop a new ability to know and recognize the hidden networks and connections between human activity and the way in which this influences the environment and nature. This is a formulation of the essence of the unification of the

conscious human being, processes of social change, and the application of scientific insights that we discussed in the introduction to this chapter. It is a weighty and unwieldy paradox that we in the industrialized and globalized world have developed so much knowledge, such profound and comprehensive insights, while at the same time we find it extremely difficult to get the natural and the manmade systems to live and function, including ensuring that all natural feedback mechanisms and life processes are allowed to function.

Since the influences discussed are so comprehensive, and at the same time so specific and subtle, nobody stands a chance of getting a bird's eye view of the situation, let alone controlling it. For this reason we need to create a collective agenda of several levels. In fact we would like to encourage the unification of the global and the local leadership efforts. First of all we should not just act as an individual society, but also operate on global and international levels to expand the incipient mutual understanding of the serious consequences we are facing, a momentum that also characterized the 2009 Climate Summit (COP15) in Copenhagen. We must qualify our collective and international ability to see and understand connections and contexts. We could do so by for instance giving priority to interdisciplinary research in sustainability and ecological intelligence. Furthermore we could unite for example the sciences of physics, chemistry, biology, political science, and other professional fields in an attempt to expand our knowledge about the external collective. This approach could be supplemented with medicine, psychology, neuroscience, and other fields to increase our knowledge of the internal aspects of life processes. In practice this could come about by inventing an alternative university of the future, which would differ radically from the constructions and the structures we know today. Only a holistically oriented science of sustainability can give us the

comprehensive and sufficient knowledge and tools necessary to help us raise the level of knowledge and intelligence to a point where we can begin to see how our actions influence the individual human being, the social systems, and the planet at large.

Anthropological research, among other sources, tells us that we as individuals and as species were originally meant to live in small local communities. Our brain and our entire system of perception are basically meant to partake of and develop in implicit, self-organizing networks. We have a fundamental scanning and warning system, which is a part of the individual's as well as the group's central feedback system. This implicit survival system is not particularly suitable as a system of orientation in our present day complex postmodern society. Our brain is for instance made up of centers specializing in orientation in a life full of smells which we rarely encounter today. Moreover, the network of the amygdala (see chapter 5), whose purpose is to recognize alarming situations, only functions efficiently in the context of a limited number of dangers, most of which do not exist in our modern reality. It is a profound truth that there are serious discrepancies between the ways in which humanity has developed and continues to develop in terms of biology and consciousness, and the technological and social ways in which societies and the world develop. In colloquial language we say that "the human race cannot keep up with the development". We could perhaps also say that the development does not follow humanity – and nature – in the sense that much so-called development, as discussed in several places in this book, harms human beings and nature. Humanity's greatest challenge is basically to create societies and global models for holistic leadership that safeguard a sustainable development on global as well as on organizational and individual levels.

In brain terminology our option as human beings is to make the most of the abilities and potentials lodged in our neocortex. The shortcomings of the reflex-based, implicit neural processes can be redressed when our thinking and reflecting brain discovers and understands more. *"We can learn the now hidden consequences of what we do, and what we do about them – and so cultivate an acquired ability to compensate for the weakness of our preprogrammed ways of perceiving and thinking".* (Goleman, 2009)

In their book *The Tree of Knowledge* Maturana and Varela make the following statement: "Reflection is a process of knowing how we know. It is an act of turning back upon ourselves. It is the only chance we have to discover our blindness and to recognize that the certainties and knowledge of others are, respectively, as overwhelming and tenuous as our own. This special situation of knowing how we know is traditionally elusive for our Western culture. We are keyed to action and not to reflection, so that our personal life is generally blind to itself. It is as though a taboo tells us: 'it is forbidden to know about knowing'. Actually, not knowing what makes up our world of experience, which is the closest world to us, is a crying shame". (Maturana & Varela, 1987). It would be advantageous to the development of a global science of sustainability and ecological intelligence to seek inspiration in the organizational principles of living systems.

A Model Explained

Our overall objective should, as mentioned, be to create shared knowledge, understanding, international agreements, and regulations – a holistically oriented shared responsibility. In practice it concerns culture, education, development, dialogue, negotiation, etc. Moreover, we should in the social and relational fields tap into the comprehensive resources

we as a species have developed for the purpose of participating in groups and communities. We should create sustainable cultures on all levels – in families, schools, and corporations. Our objective is to explicate sustainability collectively, thereby extending the collective memory. In Goleman's words, ecological intelligence is a shared concern, which creates synergy with social intelligence. If we add our abilities to coordinate and harmonize our efforts in a concentrated, efficient cooperation, where empathy, perspective, and sincerity create links between the individuals involved, then the value of the information will increase in the process. Goleman furthermore points to the fact that it will be advantageous to us to let swarming insects or the ordered complexity of an anthill inspire us to upgrade the collective flow of information. These species have an intelligence that enables them to reach a higher goal by letting every member of the group follow and observe simple principles without the need for a leading or guiding authority.

When it comes to our collective ecological goal, the swarm rules might boil down to: 1) know your impacts, 2) favor improvements, 3) share what you learn. Such a swarm intelligence would result in an ongoing upgrade to our ecological intelligence through mindfulness of the true consequences of what we do and buy.

(Goleman, 2009)

Emergence and Design

Fritjof Capra distinguishes between, on the one hand, aspects created by the self-organizing processes of life, which he calls *emergent structures*, and on the other purposeful and *designed structures*. The creativity of life develops in the

emergence process. Prior to the advent of humanity all living structures were emergent structures. In tandem with human evolution, developments occurred within language, cognition, and reflective behavior, allowing human beings to form mental images of objects, to formulate goals and strategies, including the creation of structures via design.

In non-human nature there are no purposes and intentions. This does not mean that life is meaningless and consists of coincidences. The extended order, which characterizes the systemic-sustainable perspective, is similar to that manifested by self-organizing processes and intelligence in all living organisms. Purpose is characterized by a reflective consciousness. In the book *The Hidden Connections* (2003) Fritjof Capra says that: *"Human organizations always contain both designed and emergent structures. The design structures are the formal structures of the organization, as described in its official documents. The emergent structures are created by the organization's informal networks and communities of practice"*.

Any organization embodies two types of structures which are inherently different. Designed structures ensure the stable and the predictable, the regulations and the routines, which create stability and are necessary as part of the organization's efficiency. In contrast, emergent structures ensure the new, creative, flexible element. These two structures reflect the two aspects between which complex systems oscillate i.e. continuity and flexibility, as described earlier in this chapter. Moreover, they also look like the dynamic between the brain's so-called top-down and bottom-up processes described in the chapter about the brain. Designed structures are top-down functions, which ensure stability and continuity. They have this ability because of the strength they have built up in previous conditions, a resource which makes repetitions plausible. Emergent structures are a bottom-up function that ensures

flexibility and sensitivity to the conditions of the surroundings. The reason is the ability to change and contain uncertainty.

Emergent structures represent the part of an organization that changes, thereby adapting to its surroundings. In terms of leadership of these processes, it is important to find the right balance between design and emergence – a blend between two types of management. The traditional concept of a leader is a person who can formulate and communicate a clear and concise vision (top-down). It is also a person whose practice expresses some clear values which come to represent benchmarks for others. The other type of leader embodies the ability to create space for emergent aspects. This means to generate opportunities instead of controlling, to use authority to free up the creative powers of self-organization (bottom-up). Both types of leadership focus on creativity. A leader should always be able to create a vision and inspire the community, the organization or the corporation as a whole to create something new. Facilitating emergence means facilitating creativity. The ability to maintain a living vision is crucial to any organization, because people need to know that they are part of a meaningful process moving towards a well-defined goal. In order to create opportunity for emergent processes, leaders must be able to recognize and understand the various aspects and levels of life processes. Emergence requires an active communications network with many feedback loops. Facilitating emergence is first and foremost a question of constructing and maintaining the communicative networks that allow a free flow of information.

Allowing and encouraging life processes and communication in the shared practice will not just increase flexibility, creativity, and learning, but also reflect deeper levels when the individual human being begins to explore these

qualities. In other words, a focus on life and self-organizing processes in an organization will be reflected in the individual human being and the individual co-worker through increased inspiration and commitment. This generates a healthy working environment in which the employees feel encouraged to achieve their own goals, while not having to sacrifice their integrity in order to fulfill the goals of the corporation.

New knowledge arises, as we have seen, from chaotic processes of emergence that take time. Being creative means being able to relax into uncertainty and confusion. In most organizations this is becoming increasingly difficult, because things move far too fast. People feel that they have hardly any time for quiet reflection, and since reflective consciousness is one of the defining characteristics of human nature, the results are profoundly dehumanizing.

(Capra, 2003)

Holographic Design

… manmade systems – like organizations – have a specific characteristic in the sense that they are capable of reflecting on their own identity and the processes and actions which sustain them. When you learn to "see yourself", you generate new potential for change, for instance in the ways you cast yourself, prepare negotiations, and act in the context of a larger environment.

(Gareth Morgan, 2004)

Gareth Morgan describes six principles inspired by the way the brain seems to function, and he calls this approach holographic design. He comments that in a way it is a paradox

to speak of holographic design, since it to a great extent focuses on permitting the development of a self-organizing culture. However, certain principles would enhance this process.

Bearing the previously mentioned distinctions between design and emergence in mind, one could say that the so-called holographic element – the totality including the surroundings – is associated with emergence, whereas the casting or the staging is associated with design. Morgan's six principles of holographic design look as follows.

1) Incorporate the parts in the totality:

   a) The DNA of the corporation – visions, values and the foundation culture which unifies the organization.

   b) Network intelligence – creating an organic information system.

   c) Holographic structure – growing by budding; it is possible to grow and extend your range, while also remaining small

   d) Holistic team – through diversity and overlapping roles

When organizational units get room to develop in ways that further local intelligence – either through self-governing groups or in the shape of decentralized semiautonomous units – the ability to perform intelligent self-organization is enhanced throughout the system.
This development presupposes feedback mechanisms, communication, and processes of cognition and reflection.

2) The meaning of extra capacity:
Any system which has the ability to perform self-organization must have some extra capacity that leaves room for innovation and development – without this surplus the system becomes rigid and static. Ringi (see point 6) exemplifies this concept.
Another example occurs when several teams work in the same field independently of each other and occasionally meet to exchange information and ideas. Such a process opens up the extent of the research, and it includes the aspect of random variation.
This modus operandi creates superfluous functions and skills and this is precisely the way in which life processes ensure diversity and renewal.

3) Necessary variation:
The internal variation in a self-regulating system must correspond to the variation and the complexity found in its surroundings – i.e. all elements in the organization must contain relevant knowledge necessary to handle the tasks and the requirements that will most likely occur.
It is of vital importance to permit a sufficient degree of internal complexity.
The three first principles all create the ability to develop, but the system also has a need for freedom to develop.

4) A minimum of critical specification:
The basic idea is that if a system has the freedom to organize itself, it must have a certain degree of autonomy, which enables suitable innovations to occur and materialize.
Hence it is crucial that leaders do not set up frameworks to a greater extent than absolutely necessary, when initiating a process or an activity.
The principle of a minimum of critical specification preserves the ability to perform self-organization.

5) Learning to learn:
Organizational learning, sustainability, and continual self-organization requires double-loop-learning that allows the leadership norms and regulations of a given system to change in accordance with the changes of the surrounding environment.

6) Ringi (Japan):
A process based on disagreement (and difference), but which nevertheless creates consensus.
The Ringi is a collective system for making decisions. One aspect of the Ringi is that during the process a so-called policy document will circulate in the group (of leaders or colleagues). If someone disagrees with the proposal, it is up to him or her to improve the document. Then it will be circulated again. The process explores the values, the premises, and the details associated with a given project from the point of view of the majority, until a position emerges, which satisfies all critical considerations and parameters.

Three of Nature's Basic Principles

As previously mentioned, Joseph Bragdon describes a number of philosophical and organizational core principles associated with the idea that corporations are living communities whose primary value is to support life. Living systems and life processes are cyclical and we live – separately and in the corporations – in a world structured by networks within networks and concentric cyclical patterns, in short fluctuating movements. Bragdon emphasizes three of nature's basic principles which represent this process. The first concerns the self-organizing power in every individual and his or her quest for survival and potential development. Nature's second principle represents the balancing principle of mutual dependence. The third principle involves multiplicity

and diversity. A healthy ecosystem, for instance a forest, encompasses thousands of species whose cumulative resources generate many cyclical levels.

These three principles constitute a key to the understanding of the unremitting instincts of the life process. The existence of the individual system is completely dependent on that of the metasystem, the balance of the greater living system, because all life and all living systems are organized in natural ways in these networks. It is crucial to understand the difference between living and non-living assets or values. "People and Nature are uniquely endowed with intelligence (in the sense of reacting to changes in their environment), the capacity to adapt and reproduce, and the ability to self-organize". *(Bragdon, 2006)*.

Living assets are: intelligent, adaptable, self-organizing, fertile, active, and linked in as opposed to non-living assets which are: non-intelligent, non-adaptable, not self-organizing, organized in different ways, losing value, passive, and not linked in.

When you translate the principles of the life processes to the foundation of organizations and the daily operation of corporations, the following features stand out:

1) The corporation's mission, vision, and basic values that reflect optimistic, sustainable ideals

2) Work principles that respect the environment and preserve the resources

3) Decentralized and network based organizations with local authority to make decisions

4) Work places in which the co-workers are shown confidence, are given opportunities to develop, and are held responsible

5) Leaders functioning as mentors in order to further the professional development of the co-workers

6) Cultures, that support continual learning, cooperation, and exchange of ideas and knowledge

7) Economic policies designed to maintain the corporation for generations and generate heritage for the shareholders

8) Leadership systems that perceive profit as a means to generate higher quality and service rather than as a goal in itself.


Implicit and Explicit Knowledge

The distinction between explicit and implicit knowledge in organizational learning is described by Ikujiro Nonaka et al. (in Capra, 2003). He describes explicit knowledge as information that can be communicated and documented through language. By contrast, implicit knowledge is acquired through experience and often remains unshared. Ikujiro Nunaka says that knowledge is always generated by individuals, but that knowledge can nevertheless be shared and expanded in the organization through social interactions that can transform implicit knowledge to explicit knowledge. Implicit knowledge is always a precondition for explicit knowledge – it creates a context of meaning from which the knowing individual acquires explicit knowledge.

Human beings have two levels of objectives. One is implicit and unconscious and controlled by, for instance, the autonomic nervous system. Survival and reproduction are our evolutionary objectives. The other level is explicit and conscious. When the first level is stable, it is possible to wish, dream, long for, and focus your intentions on the basis of priorities and choices, to select and thereby deselect. You

decide that something is more valuable than something else, that something makes more sense than something else. In the continual process of creating a narrative of self, you can glance over your own shoulder to see where you are in your life (the present), where you come from (the past), and consider carefully what moves to make (the future).

For human beings it means that the way in which our nervous system and brain are constructed and organized are crucial to our sense of reality. The question as to what the human perception of reality looks like inside each individual – what we actually consist of, our structure (frameworks) and functions (values) – are developed and trained when we work with the four aspects of the personality mentioned previously.

Example: Investigating the structure and the dynamics from implicit to explicit.
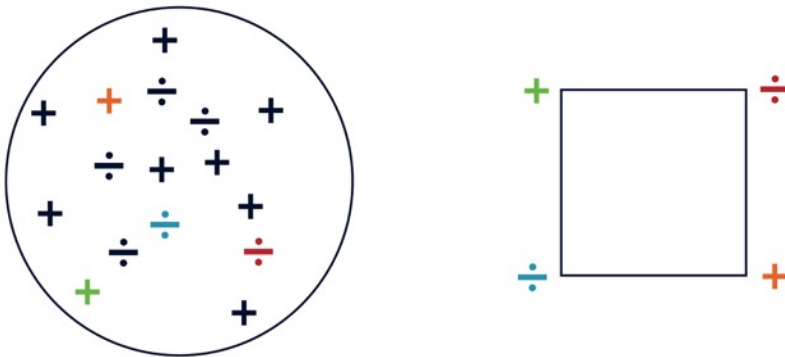
A: take a piece of paper, draw a circle, write minor and major issues (headwords), plus and minus, that spontaneously comes to your mind. when you focus on the individual fundamental forms (3-5 minutes).

B: Then find and choose the two most important pluses and the two most important minuses and place each quality at a corner of the square .

This can be done by working with tools that open up implicit unconscious structures in the brain, the heart, and the body which among other issues harbor implicit memories from the beginning of life. You can develop these aspects through exercises in facial recognition, eye contact, gesticulation, etc. You could also say that if you are to lead other people, it is necessary to have the ability to lead yourself. It is for instance essential to be aware of your direction in life, what motivates you as a human being, and what really matters to you. Our point of departure is that the precondition for being able to sense other people is the ability to sense oneself. At this level sustainability is about recognizing the interior balance on implicit and explicit levels, as described below.

Reality is created in the individual biological unit. There are as many realities as there are biological units. In other words, reality becomes what our nervous system selects. In an organization this means that there are as many realities and truths as there are biological units (individuals, groups, departments) and that the realities of these biological units guide the way they sense, understand, and act. Reality depends on the beholder. For this reason it is crucial to create a shared language about structure, function, and values. It is essential to so to speak negotiate a few shared fields of reference. In this context it is crucial that each individual selects a field that makes sense to him or her. Through this procedure communication becomes the link that joins our individual experiences to a shared reality – in terms of relations, family or any other group. We could call this the explicit and conscious shared understanding of structure, function, and values. The ulterior implicit and unconscious level is the sum of the group's previous experiences and the physical, neurological processes that link individuals.

We agree with Gregory Bateson when he said that on one crucial (explicit) inter-human level information is the difference that makes a difference to the receiver. Our ability to connect with our interlocutors via language thus becomes decisive to our ability to inform and communicate.

The other decisive inter-human level is the ability to sense the other person, to perceive facial gestures, gesticulations, body language, and recognize emotions and intentions. On this level sustainability refers to the ability to sense what other people are like, to contain differences, to have a certain amount of flexibility in your response that ensures your own autonomy and opens your system to opportunities for contact and synergy. We remove the focus from the fact that our own idea should be the guiding force. Instead we are aware of the effect of the communication and the actions generated by the idea.

The third level concerns the totality – for instance the corporation, the municipality or the department. The general ideas and directions are created on this holistic level. Vision, mission, and meaning. In a manner of speaking, this is the locomotive of balance and development. Here the overriding factor is the clarification of the task. What is the purpose of the organization or the corporation and where is it heading? Maturana says that the basic biological drive in all development occurs where there is love, community, and cohesion. In the context of an overall objective this means that the more precisely a given mission voices respect for life on all relevant levels, the easier it will be for the co-workers to feel shared responsibility and ownership for the totality. The minute the meaning of life is reflected in the corporation's practice, appreciation and acknowledgment processes will be amplified. On the explicit level sustainability concerns the leadership on all formal levels of human and material processes in transparent ways and with respect for the overall

balance. On the implicit level sustainability must make its mark through the corporate culture's general atmosphere and attitude to shared responsibility, idealism, and commitment.

The Brain as a Selforganizing System

This chapter is an introduction to the brain and its structure. This includes a description of selected aspects of the brain and the nervous system. The crucial aspect is the brain's executive role in the internal (and external) leadership processes.

Keywords: the brainstem, the limbic system, the neocortex, the cerebellum, the autonomic nervous system, the vagal nerve, the base of empathy, attention, and multiple intelligences.

For thousands of years humanity has attempted to understand the central aspects of being human. The human psyche (the soul, the intellect, the mind) is a functional entity perceived as a process resulting from neurological processes in the entire body, where the brain is at the center. In recent years brain research has resulted in an explosive amount of new neurological data.

At birth the human brain is approximately one fifth of the mass of the average adult brain which weighs around 1300 grams. Compared with the brains of many animal species, the human brain is at birth undeveloped and immature, and hence so much more dependent on the environment and the people who provide care and nurture during its first years. At the age of 20-23 the human brain is fully developed. The primary sensory and motor skills are fully grown at the age of 2. In children under the age of 2 the volume is greater in the right hemisphere than in the left. The brain consists of 80-100 billion neurons or nerve cells. The twenty billion nerve cells in the neocortex are each linked to approximately 10.000 other cells.

The brain's nerve cells emit irregular impulses a few times per second. This is called the brain's background activity. When the nerve cells are activated, they fire and send out impulses at a frequency of around 50-100 discharges per second. Nerve cells which due to external influences fire simultaneously are linked. Every time they are activated in the same way, either simultaneously or consecutively, the link between them is reinforced, and the likelihood that they will fire simultaneously again is increased. This is the central mechanism behind any type of learning, and it is the basis of Donald Hebb's doctrine which states that "neurons, that fire together, wire together". Hebb continues the explication by describing how all forms of perception, motor skills, learning, and memory are managed by the communication between nerve cells, which are activated simultaneously time and again. The more we use the brain, and the more our nerve cells communicate with each other, the easier learning and development occur. The brain is inherently constructed to create connections between experiences and to position them in an overall system.

Like every living system – from single neurons to complex ecosystems – the brain depends on interactions with others for its survival. Each brain is dependent on the scaffolding of caretakers and loved ones for its survival, growth, and well-being. So we begin with what we know: The brain is an organ of adaptation that builds its structure through interactions with others – there are no single brains! Scientists have had to expand their thinking to grasp this idea. The individual neuron or a single human brain does not exist in nature.

(Louis Cozolino, 2006)

The Brain's Tripartite Structure

The human brain is made of a large number of varied and complex interconnected functions. Since Paul MacLean in 1970 described the brain as "three in one", it has been common knowledge that the brain was structured by evolution. The oldest sector is the reptile brain (1) on top of which we developed an emotional mammal brain (2) and most recently the human brain or the neocortex (3).
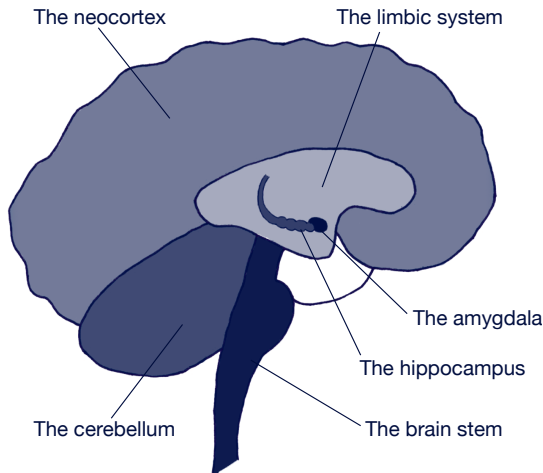
Figure 13: The brain

In the recent decade research in neuroscience has made great progress, which indicates that the brain is much more complex than previously assumed. The new data also specify that our present knowledge represents only a fraction of what we still have to learn about the brain! For our present purpose the following simplified and pedagogical model will suffice:

1) The brainstem and the cerebellum (the reptile brain)

2) The limbic system (the mammal brain)

3) The neocortex (the human brain).

The brainstem and the cerebellum constitute a basic unity which attends to the greater part of the autonomous processes in the human psychophysical system, including the regulation of heart rhythm, breathing, and hormonal functions as well as the basic balancing of a number of subsystems in the totality of the human organism – also called the homeostasis. The brainstem is in charge of bodily sensations and energy regulation in the human body.

The limbic system is located in the center of the brain and plays a vital role in all kinds of emotional processing. In the context of trauma, the sectors amygdala and hippocampus, which will be mentioned later, are significant. Moreover, this system attends to the balance between the internal and the external world, and interprets and processes the impulses from the brainstem.

The *neocortex* interacts with and analyses experiences from the external world and is considered to be our emotional, thinking, and planning system. The brain is not only constructed on a hierarchical basis. It is also divided into a

right and a left hemisphere with completely different functions and periods of growth. In the adult brain the left hemisphere attends to categorization, classification, analytical, and differentiating processes, while the right hemisphere is in charge of holistically oriented, spatial, social, and integrative processes (Hart, 2006).

In an evolutionary perspective the human nervous system is constructed in such a way that it is constantly sensing and scanning inside out and outside in, in a calm and regular rhythm. The two branches of the autonomic nervous system *sympaticus* and *parasympaticus*, coordinate the heart rhythm in an even variation – *sympaticus* increases the heart rhythm and alertness, while *parasympaticus* lowers the heart rhythm and attends to relaxation and regeneration. The continuous out-in and in-out rhythm is co-ordinated with the sensing of the body and experiencing the external world through the senses. It is like a pendulum or an open/ close mechanism which constantly alternates between being ready for action and then resting, constantly changing between sensing the surroundings and sensing itself. The constant organic attentive listening is vital to the feedback system, which since time immemorial has ensured survival and sustainability. The nervous system is totally committed to linking the internal and the external worlds.

Brain research is carried out on the basis of chaos and systems theories. In this perspective the brain is a non-linear system characterized by the fact that the totality differs from the sum of its parts. Structures that respond according to non-linear principles can cause great negative and positive transformations through small changes (Hart, 2006). Non-linear systems move from simplicity to complexity and in this progression two simultaneous processes should be balanced: differentiation and integration. The simultaneous process of differentiation and integration is a basic principle

found in and amongst all living organisms and at all levels from nerve cells to human relations to the universe. Daniel Siegel describes the relationship between the two in the following way. In differentiation the elements in a system are unique and different, like for instance in a family, where one person has his or her opinion without necessarily agreeing with the rest of the family. In integration the elements function as a whole, for instance like a family which demands that everyone agrees and should act together in unison. In a family the balance between differentiation and integration would, for instance, be to respect the individual differences, while still sharing them. When a system exists in a coherent complex condition, where it balances between differentiation and integration, the system is in balance. The nervous system cannot maintain the harmonious complex condition constantly and hence it graduates to either a) a rigid condition where everything is predictable or b) a chaotic condition where everything becomes unpredictable and disorganized. When the system can no longer maintain the harmonious condition, it will attempt to maintain the rigid condition prior to the advent of the chaotic stage. The neural network constantly oscillates between processes of learning and experience, and between harmony, rigidity, and chaos.

Daniel Siegel's definition of the mind is that:

- The mind is a process associated with a flow of energy and information.

- The mind (the flow of energy and information) is generated in the encounter between neurophysiological processes and inter-human relations.

- The mind develops when the genetically programmed maturing of the brain reacts to actual experiences.

Brain and mind research from the last 10-15 years demonstrates among other things that:

- Embodiment. The mind is not located in the head and the brain, but is embodied in the entire physical organism and embedded in the environment.

- Emergence. Embodied cognition is created by emergent, self-organizing processes that span and interlink the brain, the body, and the surroundings.

- Self-Other co-determination. In human individuals (and other social beings) the cognition lodged in the body emerges from the living and dynamic interaction between the self and the other.

Emergence pertains to systems in which local elements and rules give rise to global patterns of activity. What enactive cognitive science stresses is that emergence via self-organization is a two-way street involving circular causality.

(Evan Thompson, 2001)

The Internal Reference Point – the Self and the Autobiographical History

The distinguishing characteristic of the individual is that each of us shares the sense of having an internal point of orientation, a self, which constitutes the foundation of our self-experience. We experience being an individual who senses, understands, feels, thinks, and plans; a person who has relations – a partner, children, family, friends. I experience the

world as structured around myself as an isolated being. The point of departure is that I as an independent person orientate myself from an internal reference point towards the external world.

It was not always so. We are all born without this kind of orientation ability. At birth we are incomplete in a number of ways, including the makeup of the brain, the nervous system, and the internal representational system – aspects which in the span of a few years enable us to construct the inner sense of self mentioned above. However, we are also born with a wide range of diverse functions, genes, and preprogramming, which ensure that the vital processes of development are self-organizing, and that the internal representational system is created over time.

"The individual emerges from the dyad", says Louis Cozolino. In colloquial language this means that human connections equal brain connections. The infant is born with an ability to recognize faces, to have eye contact, and to decode body language. This inborn trait is located in the right hemisphere of the brain. During the last fifty years a great number of researchers in attachment theory, from John Bowlby to Daniel Stern and Daniel Siegel, have described how the internal representational system and the formation of the infant's neural networks are completely dependent on intimacy, contact, and nurture provided by the primary care givers. In the 1990s our knowledge about close contact between human beings was expanded, when Italian brain researchers discovered the mirror neurons. The mirror neurons link observations and actions, and make it possible to participate in another person's actions and mental life without imitating the person in question. This may result in an experience of sharing or understanding a person's intentions and emotions.

The emotions, which people share and which also exist between children and parents, are communicated through facial expressions, vocalization, eye contact, gesticulations, body language and touching. The way an adult contacts newborn children by adjusting and approaching the state of mind of the infant, contributes to the regulation of the child's internal conditions. It may, for instance, happen when the adult approaches a sad, agitated or hungry child by matching its state of mind, adjusting or affectively matching his or her own condition with the child's. You create a kind of resonance, a psychobiological behavior, which is the precondition for the creation of a secure attachment, which over time contributes to the formation of the child's brain.

Periphery or Resonance and Contact

The human brain and our affective and emotional expression are meant to participate and resonate with other people's expressions, a process through which we tune into and match each other. Our nervous system consists of rhythm, resonance, and synchronicity phenomena, which turn it into a living organism in constant change. The neural systems develop through stimulation. This stimulation consists of among other things resonance and various kinds of synchronicity. By resonance we mean that activated nerve cells initiate vibrations in other nerve cells, which then increase their activity. The concept of synchronicity refers to the fact that the activity in groups of nerve cells is activated simultaneously. In this way resonance and synchronicity constitute a foundation pulse in all actions carried out by human neural networks – for instance in the way in which we match each other. Foundation rhythms also interact. This means that some types of behaviors reiterate themselves at given time

intervals. For reasons that have not yet been clarified, the tendency towards synchronicity is one of the most sustained continual forces in the universe. Research in chaos and systems theories is presently exploring this field. Vibration neurons synchronize movement, and mirror neurons provide the nervous system with the ability to imitate what goes on in other people. Your nervous system is activated as a function of what the other person/your interlocutor does. In this way the mirror neurons link observation and action, and enable us to participate in the other person's actions and mental world, also without imitating him or her, just by being present, registering, and getting a real experience of understanding another person's intentions.

When we see a human body, we see a totality limited by and contained in the external layer of skin. When we look deeper into the body, we see layer upon layer of systems and subsystems down to cell level and from there to molecules and atoms.

Top-down and Bottom-up

The brain's circuit functions from above, so-called top-down processes, as well as from below, so-called bottom-up processes. By bottom-up we mean that sensations build up through the brain's lower implicit levels – brainstem and cerebellum, the limbic system, and on to the cortex, where a cognition process takes place. When various emotions accumulate and become actual states of mind, a bottom-up-process takes place. The human being's underlying scanning and warning system, consisting of the senses, the heart rhythm, and the autonomic nervous system (ANS), is the basic bottom-up-system. However, mood and emotional conditions can also be a top-down process. A sensation is characterized by what is expected. The experiences of the

past and embedded memory will always influence us with a preconceived attitude to the way in which sensations are processed in the nervous system, and the result we end up with in the shape of a momentary experience. We experience the influence of the top-down-processes every single moment of our lives, since they are the sum total of the cumulative experiences of our past. This structure has had great survival value in humanity's evolutionary history, ensuring among other things that the brain could make quick assessments.

In order to make the future predictable, we experience the present through the filter of the past. The organizational structure we call the self or the I is filled with top-down patterns.

> *Top-down processes are defined as intrinsic sources of contextual modulation of neural processing. These influence all levels of systems, including planning, working memory, and attention.*
>
> (Siegel, 2007)

The top-down process thus filters everything that the mind encounters. In the depth structure the filtration equals the perception and cognition pattern of the individual human being in question. Even the moment of the actual sensation process as a bottom-up procedure will always occur with preconceptions. Through awareness training in silence or neutrality it is possible to develop an approach to intimacy in the present moment.
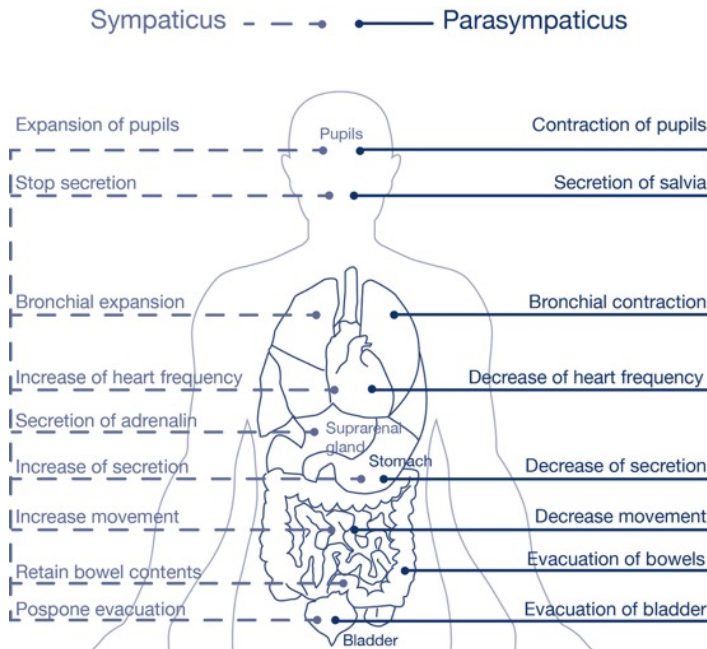
With awareness we can choose the outcome of our response. This makes awareness not just a factor influencing our knowledge: awareness alters the direction of our future activations. Bottom-up brings us into now. Turning to our senses brings the world and our bodies into direct, simple sensory fullness in our awareness.

(Siegel, 2007)

The human nervous system could in a general and simplified way be described as follows: the central nervous system and the peripheral nervous system. The central nervous system consists of the brain and the spinal marrow or the medulla spinalis. The peripheral nervous system consists of the autonomous and the somatic nervous systems. The autonomous and the somatic nervous systems communicate with all parts of the body. The autonomic nervous system consists of sympaticus and parasympaticus and both are of great significance to the physical grounding of the emotions. The autonomic nervous system is characterized by a high degree of self-government and until recently scientists were unaware of the fact that it can be influenced by willful actions. However, various types of research, including studies in the significance of touch and massage, have made it evident that it is possible to influence this system proactively. Recent research in meditation also indicates that long-term processes focusing on breath and heart rate can influence the autonomic nervous system. In fact the autonomic nervous system plays a central role in the regulation of a number of deeper functions of the body and the mind, including a crucial function in the neurological dynamics of trauma.

The Autonomic Nervous System

The autonomic nervous system is a comprehensive and complex structure whose main function is to support the body's internal balance system, also called the homeostasis. The autonomic nervous system is the neurophysiological basis of sensation. One of the simplest ways to link up with the homeostatic process is through the two branches of the autonomic nervous system: sympaticus and parasympaticus. Sympaticus guides and controls activation in response to threats and other kinds of high level energy processes, which manifest through an increase in the heart rhythm. Parasympaticus regulates relaxation, sleep, the lowering of the heart rhythm. The regulation of the relaxation also involves the emptying of the bowels and the bladder.

Sympaticus - — →   •——— Parasympaticus

Expansion of pupils	Pupils	Contraction of pupils
Stop secretion		Secretion of salvia
Bronchial expansion		Bronchial contraction
Increase of heart frequency		Decrease of heart frequency
Secretion of adrenalin	Suprarenal gland	
Increase of secretion	Stomach	Decrease of secretion
Increase movement		Decrease movement
		Evacuation of bowels
Retain bowel contents		Evacuation of bladder
Pospone evacuation	Bladder	

Figure 12: The autonomic nervous system – sympaticus and parasympaticus

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Sympaticus as well as parasympaticus are crucial in terms of communicating bodily sensations to the brain and translating them to emotions. Emotions embedded in the body immediately change the heart rhythm, which again influences the brain activity. This process, this dance or this organic wave occurs continuously in the body. Every minute, every hour around the clock there is an arrhythmia between sympaticus and parasympaticus. The arrhythmia speeds up the heart rhythm and relaxes it, it is linked to the limbic system which ensures that the body is constantly aware of any reasons for being particularly vigilant. In an evolutionary perspective this is a reflection of the fact that human beings used to be possible prey for enemies of every description, including animals. The increase and decrease in heart rhythm, which happen in a matter of seconds, are also called the heart rhythm variation.

The body has an implicit underlying balancing system. This encompasses the autonomic nervous system, which constantly runs a scanning system that ensures that we are always on the alert; ready for fight or flight, and that we relax, when there are no reasons to fight or flee. In this function the autonomic nervous system operates via the physical system, the heart, and the limbic system deep inside the brain.

The Vagal Nerve and the Autonomic Nervous System

In recent years research into emotions and their basis and interaction with the autonomic nervous system has resulted in new comprehensive theories about the tenth cranial nerve, also called the vagus. The originator is Professor of Psychology Stephen W. Porges, who is supported by a number of the world's leading neurologists, psychologists, and psychiatrists. The central aspect of the theory is that the autonomic nervous system consists of three sections

instead of the well-known two described above, i.e. the vegetative vagus, the sympaticus, and the social vagus.

The vagal nerve has two branches, an early primitive branch – *the dorsal branch,* and a later and more developed one – *the ventral branch*, which attend to quite different processes, both being associated with the parasympaticus.

The first system, the vegetative vagus (the dorsal branch), supports digestion and administers immobilization behavior. The second system, the sympaticus, mobilizes the fight/flight system. The third system, which Cozolino calls the social engagement system or the mammal nervous system (the ventral branch), supports engagement in the surroundings and has the ability to influence the heart rhythm directly. The ventral branch is linked to all the cranial nerves that control the muscles around the eyes and in the face, including the mouth and the inner ear. These all undertake social communication via behavior used to define and express emotions. The vegetative vagal nerve and the sympaticus are active from birth, whereas the social vagus is only activated during the first couple of months of the child's life.
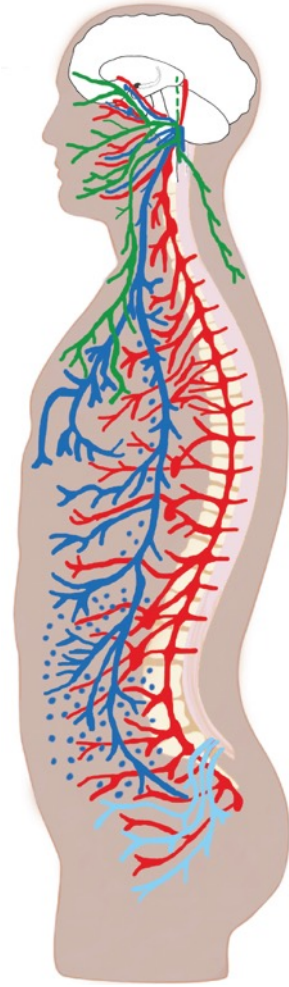
Sympaticus: red
Parasympaticus: green, dark and light blue
Ventral vagus nerve: green
Dorsal vagus nerve: blue

The social engagement system emphasizes that evolution is not just a matter of developing new and more complex brain regions, but that systems need to be modified and combined to perform increasingly complex functions. Social behavior and emotional regulation derive from our ability to regulate each other's ANS with facial gestures, actions, expressions, and vocal communication.

<div align="right">(Louis Cozolino, 2006)</div>

Previously quick response to possible dangers was a significant survival function. The animals or human beings who were quickest at taking cover, fleeing, or, if necessary, fighting their way out of danger, survived the longest. In human beings the limbic system and the autonomic nervous system play a central role in the neurological processes, which unfold around the continual surveillance of possible dangers, and the same main areas are crucial in the context of traumas.

The brain's control center is managed from a small almond shaped structure, named after its shape, the amygdala, which means almond in Greek. The amygdala is the brain center, which co-ordinates behavior, immunological and neuroendochrinological responses to threats from the surroundings. It is also the storage center of the brain's emotional history. The amygdala combines incoming emotional signals with stored emotional memories. If there is the slightest likeness between previous extreme memories (e.g. traumas) in the storehouse of the amygdala and the perception of the incoming signals, the amygdala will immediately alert the autonomic nervous system and activate the body's fight/flight response. There is a direct link between the amygdala and the heart rhythm: "The activity in the central cells in the amygdala is synchronized with the heart's rhythm" (Doc Childre, 2005). The task of

the amygdala is hence to scan via the senses to determine whether any type of danger or anything disturbing is on the horizon. In the context of decoding other people, the amygdala is linked to the structures associated with facial recognition. In this respect, the amygdala is active from birth, and during the child's first years it plays a significant role in all emotional communication and learning.

Another important structure in the limbic system is the hippocampus. This segment was also named after its shape – hippocampus means seahorse in Greek. The hippocampus is located in the immediate vicinity of the amygdala, and in contrast to the amygdala it is not fully mature at birth, but develops slowly during the first two or three years of the child's life. The hippocampus plays an important part in learning and memory by, for instance, attending to the processing of time, space, place and the processes of generating meaning. This means that the hippocampus contributes to the linking of memories with time and place. As such it is vital to the autobiographical memory, the ability to remember and place one's life story in time.

When the amygdala perceives a threat and goes into overdrive, the activity level of the hippocampus is lowered. This means that the ability to orientate yourself (in time, space, place, and meaning) and make sense of what happens is impaired. This development is naturally characterized by a decrease in the ability to voice your experience of what happens around you. This is also immediately noticeable in the sector called *Broca's area*, which is located in the left hemisphere, in effect the administrative center of language production, since this structure is also subdued in these situations. This explains the well-known situation, where fear causes us to be "dumbstruck".

When a human being has the overwhelming experience of being under pressure and eventually feels stressed or

traumatized, the process in which the amygdala takes control (as described above) discontinues the normal balance between the amygdala and the hippocampus, and lets the autonomic processes take over. This development occurs subliminally without our conscious awareness. Once we become aware of this chain of events, it is processed in the right hemisphere (the frontal lobe). Here it is embedded as a memory, which is difficult to make sense of, since the task of situating it in time, space, and place is complex. This unclear, confused, and meaningless embedment out of context can result in a loss of direction with a tendency to despair and depression.

The Basis of Empathy

Mirror neurons and the neural networks they coordinate give us an opportunity to react immediately, to follow and generate a theory about what goes on in other people. The mirror neurons are not just a link to a network in ourselves, but just as significant a link to other people. It appears to be a significant component in the social brain as well as an important communication tool across the range of the social synapsis. In other words, mirror neurons function as the basis of empathy.

One could go a step further and talk about a new existentialism, as does Marco Iacoboni in the book *Mirroring People* from 2008. Iacoboni explains that the function of the mirror neurons gives cause for future optimism, and that the research in this field can be used to create more empathic and nurturing societies. In fact he talks about an existential neuroscience:

The existentialists constantly reminded us that what is worth understanding and knowing is our existence, the human condition and that engagement and involvement are superior to a detached stance. Mirror neurons are brain cells that seem specialized in understanding our existential condition and our involvement with others. They show that we are not alone, but are biologically wired and evolutionarily designed to be deeply interconnected with one another.

(M. Iacoboni)

Rifkin discusses an empathic civilization, focusing on the current leap in global empathy. The challenge is, according to Rifkin, to create social confidence on a global level, if humanity is to develop a new sustainable mind-set or what he calls a frictionless, integrated, socially just and sustainable planetary economy.

From Implicit to Explicit Processes

The brain creates generalizations, often called mental models, on the basis of repeated experiences. These mental models are created in the activation patterns of neuron groups associated with the senses (sight, hearing, smell, touch, etc.). This is part of our implicit memory. Mental models subsequently become a form or a lens, which directly influences the ways in which we experience and respond in the future. These implicit memories and the mental models they generate create themes in our narratives of self, and they organize the modes in which we make decisions. You could say that mental models are filters or lenses of sorts that help us predict the future and prepare us for action. This occurs outside the realms of conscious

attention and unconsciously influences our perception – all on the basis of prior experience.

In this way unclear life processes and problems from the past influence our present and determine the future. Our decisions and the narratives we tell about our lives can become more explicit and conscious through focused reflection on our implicit mental models. Such conscious processes change our self-understanding and by extension our mental models. When you take time out to reflect, the doors of conscious perception open up, giving you the opportunity to make changes.
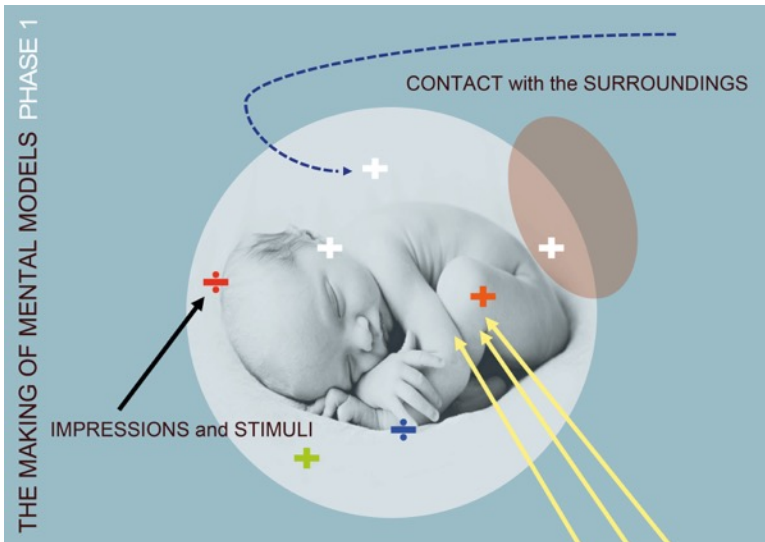
Phase 1: inner and outer experiences are registered

Phase 2: experiences are accumulated through pattern recognition
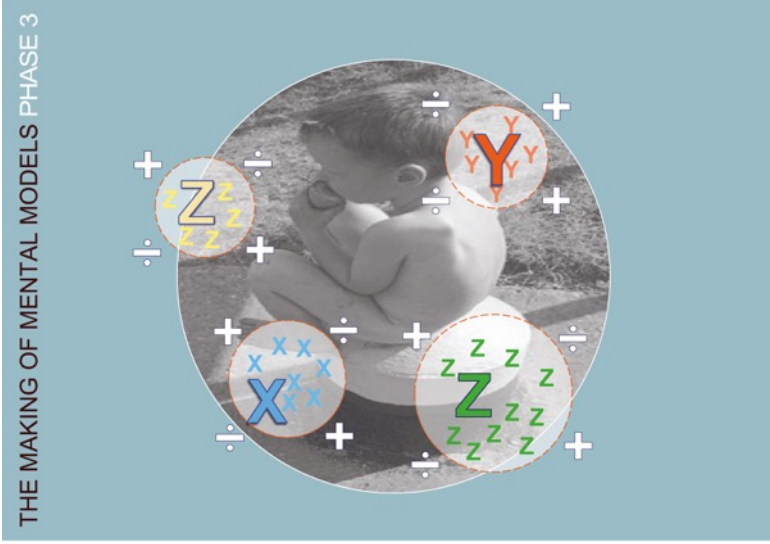
Phase 3: accumulated patterns shapes mental models

Phase 4: experiencing the world through 'the glasses of mental models

The developmental psychologist Jerome Bruner describes two basic ways in which the mind processes information: 1) A deductive process in which a number of facts, linked by linear cognition, are associated with logical decisions on cause-and-effect relations, and 2) a narrative modus in which the brain and the mind process data by creating narratives. This modus, which is developed early on (and exists in all cultures), is a separate process which creates a world of opportunities – not just facts. The right hemisphere also plays a significant role in the processing of non-verbal signals and has a more direct connection to the limbic system, which processes emotional and motivational conditions. The ability to perceive other people's signals, and to sense and understand them, functions as raw material.

A Focus on Proactive Learning Processes

Introspection and awareness of changes can be learned through exercises and thereby contribute to our development on individual as well as on organizational levels. In the context of learning, one of the central brain functions is located in the hippocampus in the limbic system. The hippocampus enables us to transform the contents of the work memory to the extent that the new information we work on is briefly processed in the prefrontal cortex and then transferred via the hippocampus to long-term memory. This is the neural basis of learning. In fact much depends on the hippocampus in terms of how we store and retain all types of memories of events in our lives. This requires a steady and constant work effort on the part of the nerve cells in the hippocampus, which incidentally is also the place where the majority of the brain's production of new nerve cells takes place, the so-called neurogenesis. The hippocampus is particularly vulnerable to emotional pressure and malaise, because a high degree of emotional agitation releases the substance cortisol. Excessively high levels of this substance damage the nerve cells in the hippocampus. This is especially problematic in cases of chronic stress or depression, or traumatic experiences, where the impairment of the hippocampus can be so significant that it shrinks due to the death of neurons. This means that concentration, memory, and learning abilities are impaired. Cortisol stimulates the amygdala and inhibits the hippocampus, thereby directing our attention towards the emotions which we experience, while also limiting our ability to absorb new information.

Many Types of Intelligence

In 1983 the American Professor Howard Gardner described seven types of intelligence.

Since then the theories of these multiple intelligences – many more than we normally consider – have been widely disseminated. In the context of the present book's focus on holistically oriented and sustainable processes, Gardner's more comprehensive intelligence concept has become an important component in the acknowledgement of homo sapiens' infinite potential. Since the 1980s Gardner has extended the number to nine, but as Mogens Hansen points out, there are a number of good reasons for including an additional type of intelligence, i.e. the *attention* function. Hence it is fair to award attention per se the status of intelligence number one, since it is a precondition for the development of each of the other nine intelligences. Howard Gardner's nine intelligences encompass: the personal interior, the personal surroundings, the physical-kinesthetic, the musical, the spatial, nature, the verbal-linguistic, the logical-mathematical, and the consciousness of existence.

> *Attention controlled by the will is a necessary basis of learning. Without a focus on attention, i.e. a willful, concentrated, and persistent awareness, you do not learn anything.*
>
> *Mogens Hansen et al., Perspektiver på de Mange Intelligenser 2005 – English title: Some Perspectives on Multiple Intelligences*

Considering what we already know about our day and age, and the problems and opportunities it presents, the theories about these intelligences are interesting per se. In the light of human diversity and creativity, they are also in many ways self-evident. In any event they are relevant in terms of the perspectives on the world described in this book.

Attention

The work memory, i.e. our capacity to retain an issue during a given attention span, is, as mentioned, located in the prefrontal cortex. In terms of contact between people or inter-human processes at large, the degree to which we feel relaxed or safe and secure is significant to our ability to maintain attention. The moment we feel tense or insecure, our attention and focus are distracted, because the amygdala transmits concerned signals. Instability strains our attention. The more we are able to control our restlessness, agitation or anxiety, the more concentrated and attentive we can be, and the better we become at sensing other people's state of mind.

In the final chapter in his book *The Neuroscience of Human Relationships*, Cozolino describes the future perspective of two central points in the evolution of consciousness. Cozolino emphasizes two primary mechanisms in the human brain, which are decisive to our development as a species. The two points are projection and anxiety which will both be discussed in detail below. A question of overriding importance to all of us is how the human brain will adapt to modern reality as we know it.

As a species we have used the psychological mechanism of *projection* – i.e. the ability to project unconscious processes, emotions, and motives onto people around us – as a mechanism, which in an evolutionary perspective served to read intentions and predict behavior in the social field around us. We are often quite certain that we know what goes on in other human beings and that we know their intentions. The attending emotions generated by this belief are automatic and unconscious. Even if the human brain is developed to predict what other people think, it is underdeveloped in terms of expanding self-knowledge and explicating the unconscious projections mentioned above.

Whereas projection occurs as a reflex and reduces anxiety, enhancing self-awareness requires great commitment and a willingness to face the anxiety that may occur in the process. Cozolino comments: "Expanding and enhancing self-awareness is an evolutionary frontier that stretches ahead of us". The actual ability to expand your conscious awareness in your surroundings, and particularly with regard to your own unconscious, implicit processes, will, according to Cozolino, become the next vital step in the development of human consciousness.

The other evolutionary threshold or mechanism we are facing is anxiety. The fear response is a reaction to dangers in the surroundings and it helps animals to survive. This is in itself an appropriate mechanism, but according to Cozolino it becomes problematic, when you add a constantly expanding cortex to the equation. Through the cortex we now have an enormous brain capacity available for abstraction, creative image formation, and concepts about the future; cognitive processes which enable us to generate anxiety about issues that are not even possible. We have also created a society which in itself generates so many stress factors that we live in a potentially lifelong condition of fear. Modern humanity has incorporated these two automatic and implicit processes – projection and anxiety – which unconsciously control much of our experience of the world. Unfortunately explicit attention and the ability to contain and tolerate anxiety are far from common. As mentioned above, this is where the evolutionary threshold is located. On the contrary our consumer society and a culture focused on experience result in a situation where our sources of stimulation to an ever greater extent are external.

Self-awareness and anxiety management, not just pertaining to the individual, but also to the changes in society, organizations, and the values that control us, will also be crucial preconditions

for the progress of sustainable structures in the development of humanity, corporations, and societies.

The evolution of consciousness will involve remembering who we are. On the one hand we need to learn to use our intellectual capacity to find ways around the hazards of our still primitive brain. On the other, we need to deepen our appreciation of our interconnection and learn better how to listen and to love. These two directions are actually one and the same, because expanding our mindfulness will involve those around us who remind us to stay on task, correct our misperception and offer alternative perspectives to ours. In this way, human relationships serve as external neural circuits that feed information back to us in comprehensible ways and deepen our awareness of the organism called the human species.

(Louis Cozolino, 2006)

CHAPTER 6

The Intelligent Heart

This chapter focuses on the heart and its role in the stream of energy and information that moves from the body and the senses to the brain and back again. Moreover, it attempts to elucidate the ways in which the heart plays a significant role as a part of the organism's systemic center – a role in some of the implicit self-organizing processes that contribute to sustainability.

In all cultures there has been an awareness of the significance of the heart in the context of humanity's deep emotional and existential consciousness. It is a well-known fact that important life choices are made with the heart, and cultures and traditions have chosen to coordinate and structure crucial existential situations from the heart. The major spiritual traditions in East and West include introspective exercises based on the link between the breath and the heart rhythm. These traditions represent centuries of experience of inner states and basic knowledge about the connections between what has been described as the human body, the soul, the spirit – and the heart's role in this scenario.

This experience and knowledge are based on observations; experiments, repetition, and the ability to reproduce certain frames of mind. You could say that this represents a certain primordial scientific approach to the human psyche – a practice based on empirical methods. Western science has only acknowledged the objectively quantifiable as science, so only with the technological development of for instance various types of brain scanners, new neuroscience, and the establishment of an actual neurophenomenology do we approach a situation where the internal and the external sciences may become two sides of the same coin.

One of the places where the separation of the internal and the external becomes evident is in language. Heart is called *kardia* in Greek. We know the use of *kardia* from the modern medical and scientific area, for instance cardiogram (a curve that shows the brain activity) or a cardiologist (heart specialist). It is in fact a scientific term, which in various ways refers to the physical heart. However, the original Greek-Byzantine word *kardia* has a much wider significance. It does not just refer to the physical organ, but also to the heart as the spiritual center of human consciousness. In short, the heart is perceived as the deepest and most authentic self, where a human being can feel submerged in a holistic totality.

When you look at a model of the heart and the blood circulation (arteries and veins), you see an image of a complete system with a coordinating center and a network that extends to all corners of the periphery. Hence the function of pumping oxygen to every corner of the body makes the heart the vital organ of the living system. This is the internal coordination. In the same way the heart is a coordinating link to the external world. From the air, i.e. the globe, fresh oxygen is breathed into the lungs and the heart distributes the vitalized blood to the body. From the

periphery of the body the deoxidized blood (including waste products) is pumped back to the heart and via the lungs and the breath the impulse returns to the globe.

This is the immediate background of the understanding of the heart as a metaphor for the center of consciousness, in particular when you understand yourself as a subsystem that participates in a comprehensive metasystem. As mentioned, the heart also has a central role in the self-organizing feedback structure.

At the moment there is one place in particular where the scientific interface between the internal and the external heart are in focus: The HeartMath Institute in Boulder Creek, California.

The HeartMath Institute

The preconditions for the establishment of The HeartMath Institute were developed over a span of more than a decade. From the end of the 1970s and up through the 1980s, the founder-to-be of HeartMath, Doc Childre, explored the accessible knowledge within heart science. Over the years he built a network of scientists and in 1991 he founded the institute as a non-profit organization for the purpose of combining heart research with teaching. The objective was to develop a number of techniques as part of a pedagogical approach that could generate more health and balance in the physical as well as the emotional life.
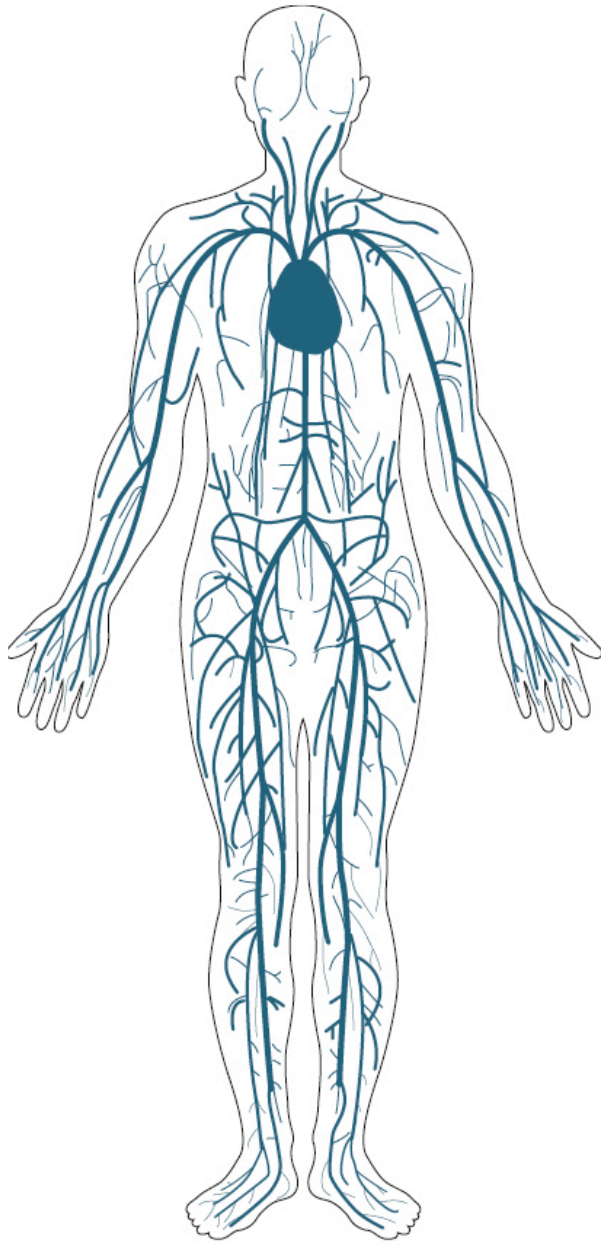
Figure 13: The cardio-vascular system

Today HeartMath represents a wide spectrum of activities from research to training and teaching programs for school children and professional training programs for corporations and organizations.

Neurocardiology: the Brain in the Heart

In the 1960s and the 1970s John and Beatrice Lacey did research in communication between the brain and the heart. They discovered that the heart conveys information to the brain in ways that influence our perception of and response to the world in significant ways. In 1991 Dr J Andrew Armour, a pioneer of neurocardiology, concluded an intense heart research project by proposing the existence of an actual neural network in the heart. He described his scientific discovery with the words: "The heart has a complex internal nervous system that is so sophisticated that it constitutes a miniature brain in itself". The heart's brain is in fact an independent network of various types of nerve cells, neurotransmitters, and proteins, etc. This fully-fledged network enables the heart to act independently of the cranial brain, and to sense, feel, learn, and remember in autonomous ways.

Connections Between the Heart and the Brain

The heart and the brain communicate in a number of different ways and the scientists at HeartMath describe them as follows: "In our experience the communication between the heart and the brain is actually a dynamic, continual dialogue, where each of the two organs constantly influences the other organ's function". The communication takes place via four highways: 1) energetically via the

electromagnetic field, 2) neurologically via the nervous system, 3) biochemically via hormones and neurotransmitters, and 4) biophysically via the pulse wave in the bloodstreams. The electromagnetic signal from the heart arrives in the brain with no delay, but a number of neural signals only begin to reach the brain after eight milliseconds. After approximately 240 milliseconds, the blood pressure wave arrives and subsequently synchronizes the neural activity – especially with regard to the brain's alpha waves.

The brain communicates with the heart through the autonomic nervous system's two branches: the sympathetic, which prepares the body for activity by speeding up the heart rate, and the parasympathetic, which prepares the body for rest by lowering the heart rhythm. The autonomic nervous system regulates approximately 90 percent of the body's functions. The activity in the two branches of the autonomic nervous system generates changes in the heart rhythm and this is measured as heart rhythm variation (HRV).

Emotions and the Heart Rhythm

In antiquity the ancient Greeks imagined that thinking and feeling were separate functions. In the seventeenth century this concept was further developed during the Age of Enlightenment. Descartes' well-known tenet *Cogito ergo sum* – I think, therefore I am – hails from this time. As early as 1994 the neurologist Antonio Damasio published his book *Descartes' Error*, in which he describes how emotions and thought activity are often quite interconnected; in fact emotions are in general a precondition for the ability to make decisions. Scientists later did research on various emotional states and their direct impact on the heart. This was carried out, in among other ways, by analyzing the oscillations in an electrocardiogram (ECG), in which minor

fluctuations were registered in response to strong negative emotions. Likewise heartbeats per second were investigated, but no significant correlation with mood swings was registered. When the cardiologists began to analyze the changes from heartbeat to heartbeat – the heart rhythm variation (HRV) – a significant breakthrough occurred. The data revealed that the changes in heart rhythm from heartbeat to heartbeat reflected the changes that occurred in the emotional states. This result was first published in 1995 by McCraty et al. in American Journal of Cardiology. Their central statement was: "We have discovered that the variation patterns in the heart rhythm to a very great extent are influenced by emotions, and that heart rhythms tend to be more ordered and coherent when the testee is in a positive emotional state of mind".

In the course of further studies it was discovered that positive and constructive feelings like kindness, gratitude, nurture, and love generate soft and ordered patterns in the heart rhythm (coherence). On the other hand, negative emotional states like, for instance, anger, frustration, and anxiety result in disordered and chaotic heart rhythm patterns.

Most people's experience is that emotions and feelings come and go, and there is not much one can do about it. At the HeartMath Institute some simple techniques for self-development were designed via inspiration from spiritual traditions. An example is *quick coherence*, whose objective is to teach us how to make our own choices and proactively train the development of ordered heart rhythm patterns. Through this process, relaxed states of emotional balance and greater mental clarity are achieved.

Quick coherence

1. The heart focus: move your attention to the heart area. Focus on the area in the center of your breast.

2. The heart breath: imagine that your breath flows in and out of your heart area. Breathe slowly and softly. Find a natural internal rhythm which feels comfortable.

3. The heart feeling: continue to breathe through the heart area. Recall a positive feeling (for instance appreciation or caring for someone) and relive it. Sense the emotion and hold on to it.

<div align="right">

Quoted from the Freeze-Framer manual, the HeartMath Institute

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Heart Coherence and Computer Training

In the year 2000 the HeartMath Institute presented the computer program Freeze-Framer, which is now called Emwave. It is a do-it-yourself solution for people who wish to train heart coherence. The program has won a number of prizes for applicability and precision. It is a biofeedback system where computer software is linked to a human being via a sensor on either a finger or an earlobe. The sensor transmits the pulse and the electromagnetic signal to the computer, which shows a continuous image of the actual coherence or lack of coherence between the heart and the autonomic nervous system. The measurement and its graphic representation are shown simultaneously on the screen so that you can follow your inner balance and oscillations. Imbalance is represented as disordered peaks, while coherence and balance are shown as soft sine-shaped waves. You also see three columns – red, blue, and green, where red is chaos (sympaticus), green is coherence (parasympaticus), and blue

represents an intermediate stage. In this way you can monitor your level of concentration as you go through the exercise and accept correctives when you are distracted and lose focus on the contact to the heart.

The Emwave program can be an inspiring supplement to introspective and heart conscious exercises. The experience of seeing the effect of the creation of inner balance actually reflected on your computer screen is remarkable. Emwave's registration of distraction and lack of focus is surprisingly sensitive and precise. The program is particularly interesting because it is capable of reflecting the fine balance between focused attention and relaxation or tension. If you become too eager and ambitious, this will immediately translate to the screen as chaotic patterns and imbalance. If on the other hand your heart focus becomes too lax and imprecise, the result will likewise be a lack of coherence. Ambition and action are related to the sympaticus and relaxed confidence is associated with the parasympaticus. The ability to maintain a clear, gentle focus will hence be reflected efficiently on the screen.

If you use Emwave regularly, you can train a general approach to a more coherent quality. Over time you get to know some of your internal patterns. You realize how little it takes for an almost maximum coherence to be disturbed by a thought or an emotion, and how much effort – unforced and gentle – it takes to rebuild a coherent flow.

Psychophysiological Coherence

The heart is the most powerful generator of rhythmic information patterns in the body. Besides blood, the heartbeats transmit a complex pattern of neurological, hormonal, and electromagnetic information to the brain

and the entire body. When the patterns of the heart rhythm are coherent, the neural information sent to the brain is reinforced. This ordered pattern, which the HeartMath Institute calls psychophysiological coherence, is an image of a chain reaction of attuned physical and psychological conditions. These are a function of a high degree of balance and synchronization between cognitive, emotional, and physiological processes. This phenomenon is often experienced as heightened mental clarity and creativity.

The psychophysiological coherence is communicated from the heart to the brain via, for instance, the heart center in the brain stem (the medulla) and from there to the thalamus and the amygdala. These areas are closely linked to the frontal lobes where sense and emotions are integrated with actual choices and decisions.

In the contexts of therapy and trauma the role of the amygdala is particularly interesting. As mentioned, the amygdala is the center in the brain that coordinates behavior, as well as immunological and neuroendocrine responses to threats from the surroundings. It is also the brain's archive of feelings, which links incoming disturbing signals with stored emotional memories. If there is the slightest resemblance between the traumatic memories in the amygdala's archive and the external perception, the amygdala immediately sends a signal to the autonomic nervous system. The result is that the body's fight/flight response is instantly activated in part via the sympaticus. It is especially interesting to observe the direct connection between the amygdala and the heart rhythm: *The activity in the amygdala's core cells is synchronized with the heart rhythm.* Over time the regular heart coherence and the relaxed confidential parasympathetic activity constitute the matching processes, which take place between therapist and client during profound therapy.

Bioelectric Communication

The heart wave emits a rhythmical pattern, which reflects one's feelings. The emotional conditions are transmitted to other people, for instance by way of the heart's electromagnetic field. The heart's electromagnetic field is 60 times stronger (in amplitude) than the brain's and 5.000 times stronger than the brain's.

The brain's energy field only extends a few centimeters from the body, but the heart's field radius has been measured to more than three meters. Not surprisingly, this means that you will be strongly influenced by the electromagnetic energy radiating from another human being's heart. At HeartMath this phenomenon has been subjected to a number of experiments. In one experiment a person sits in a chair making heart coherence exercises, and a few meters away another person relaxes while undergoing a brain scan. The interesting point is that the first person's heart coherence wave can be registered directly in the other person's brain waves. In another experiment a boy and his dog were tested. The boy's and the dog's heart rhythm patterns were measured while they were separate and apart. Before and after the heart rhythm patterns were irregular and chaotic. While they were together, they were not only regular and coherent, but also synchronized.

Heart Prayer and HeartMath

In the mysticism of the Eastern Orthodox Church – *the hesychasm* – religious worship was based on the premise that the heart is the center of consciousness. The spiritual system and a number of introspective exercises were constructed on

the basis of this concept and with a focus on the heart. The central exercise gradually became the heart prayer. It is a simplified prayer, in which the praying person in one sentence expresses an "approach to God" while also focusing on the heart. Over time the various techniques of the hesychasm were developed, the breathing and the heart rhythm being the most important features. In one of the Eastern Orthodox Church's most widely disseminated texts, *Tales of a Russian Pilgrim*, the pilgrim describes his daily practice as follows:

> *Later I began to send the Jesus prayer in and out of the heart, following the rhythm of my breathing, as taught by Gregor from Sinai and also by Kallistos and Ignatios. This means that when I breathed in, I looked into my heart with my inner eye, while I thought and said the words 'Lord Jesus Christ,' and when I breathed out: 'Have mercy on me'. Within our tradition this exercise is called the highest entrance of the heart.*

When you compare the quotation above with for instance quick coherence from the HeartMath Institute, there is a striking resemblance in structure and content. In both systems there is a focus on a) the heart, b) breathing in and out through the heart and c) coordinating the breathing with a visualization of a quality that represents a high or positive value.

The essential difference is found in the variation between the cognitive frameworks of the two systems. The heart prayer is linked to a world picture whose metastructure is focused on transcendence ("heaven" or Christ). This is not the case in the cognitive framework of the HeartMath Institute. The new scientific discoveries and the verification of issues, which for millennia have been common knowledge within the spiritual traditions, facilitate an undogmatic

dissemination of introspective practices to society in general. These internal practices are applicable in our daily work perspectives, in our personal lives, and also in relation to the basic conditions of the human predicament.

CHAPTER 7

The Leadership-from-the-Heart Triangle

This chapter focuses on the internal leadership practice, i.e. explicating leadership in relation to the self, other people, and organizational bodies. In our experience the overview provided by the model's graphics and contents is helpful. Moreover, a few simple analyses of the internal organizational triangle will help you take the first step from automated habits to an awareness of the pattern of your own actions and behavior.

Keywords: integrity, resonance, shared responsibility, credibility, empathy, self-organization.

The degree of internal grounding, the depth, the nuance, and the knowledge a human being has of his or her interior determine the way and the extent to which he or she is able to interact with other people and the world at large. The internal dimension is a central point of development in leadership work in general and particularly in relation to the development of enhanced future potential.

The Professional Leader

In all professional relations, where humanity and human processes are central to a specialized endeavor, the *professional* person's main tool is the internal resources of the personality – *the human being per se*. This does not mean that the profession (the leader, the teacher, the engineer, the psychologist, the doctor, the nurse, etc.) is insignificant. The professional structures and functions guarantee that the basic theoretical and methodical background knowledge is in place. The professional approach ensures that general and widely recognized professional disciplines are transformed to daily practice, but it is also important to remember that the actual transition from the underlying professional theories and methods is implemented by the personality of the individual. The personality, the actual person, is the link, the medium through which the professional mode is communicated and manifested.

It is the professional person's ability to create contact and attentive presence that determines the quality of the professional intervention. It is always imperative to be professionally competent, and when the work concerns people, the professionalism is directly proportional with the specialist's emotional and social intelligence. In a professional work scenario involving other people, where the sum of the professional and personal competences is the basis of the cumulative output, it is important that the leader or the co-worker gets an overview of his or her resources – internal reference points and training skills.

THE TRIANGLE

Integrity, Resonance, and Co-responsibility for the Totality

In classic organization theory you use a triangle to illustrate three organizational levels. This simple organization model can provide an overview of the ins and outs of an organization.

Sustainability
Holistic openness
Commitment to something beyond oneself
SHARED
RESPONSIBILITY

obligation
intention
attentive focus

synergy
diversity
confident openness

INTEGRITY
Personal centering
Authentic core values
The heart as the fulcrum

personal
work point
the smallest possible change

RESONANCE
Empathic capacity
Interpersonal processes
Problems and opportunities

Figure 14: The leadership-from-the-heart triangle

The left corner of the triangle, *integrity* (corresponds to point a) in the living system model), has an internal focus associated with the centering of the personality. The right corner, *resonance* (corresponds to point b) in the living system

model), concerns contact and communication with individuals and smaller groups of people. The third and upper corner, *co-responsibility* (corresponds to point c) in the living system model), refers to commitment to and cohesion with organizational and holistic processes.

The illustration below explicates the ways in which the leadership-from-the-heart triangle is related to the living system model.
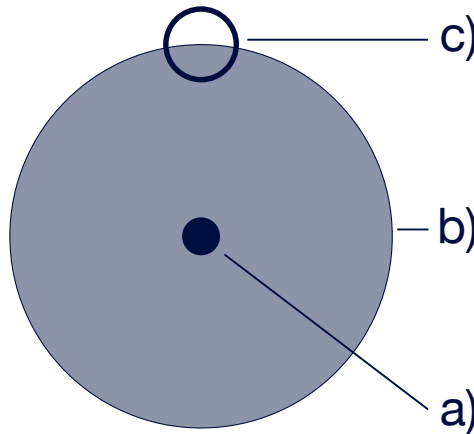
Figure 15: A living subsystem

a) The central reference system. The internal core, the integrity, which organizes experiences and values integral to life practice.
b) The periphery, the resonance. The internal human structure, which organizes knowledge about encounters with the surroundings. The periphery functions as a membrane to other people.

c) Cohesion and shared responsibility. In other words the internal structure, which organizes knowledge about totalities, and being part of a greater system.

Integrity or Having Your Heart in the Right Place

Historically, we in the modern, scientifically oriented West have isolated the mind from the body, from nature, and from other minds. Our experience of our body, nature, and other minds has to be constructed privately... We are now experiencing a revolution...that the mind is always embodied in and made possible by sensory-motor activity of the person, that it is interwoven with and co-created by the physical environment that immediately surrounds it, and that it is constituted by way of its interactions with other minds. The mind emerges and exists, from intrinsic self-organizing processes, interacting with other minds.

(Daniel Stern, 2004)

The integrity corner of the triangle reflects the fact that the central internal reference system – the personal center – is sustained by a number of values and a practice founded on these values. The overriding issue is self-confidence and a basic responsibility for one's own actions, based on the fact that in some vital areas one is accountable to oneself. This generates a crucial feeling of authenticity. A daily existence or a practice, in which some of our core values unfold in real life, generates a fundamental self-assuredness. On external levels this assurance is expressed in the contact with other people, generating an increased confidence and credibility in relational processes.

Credibility

In which areas of life are you truthful to yourself? Where can you count on yourself? In which situations do you actually complete a course of action which you have promised yourself to undertake? You should not look for what you would wish for; you should focus on the actions, which you reiterate in your life, all the daily situations and routines in which you maintain the person you are. The point is to uncover some of the values, routines, and actions lodged so deep under your skin that they have become implicit and automatic to the extent that you almost do not notice them. One variation on this theme could be that you imagine contacting some of the people whom you see on a daily basis – your spouse, children, friends, colleagues, co-workers – asking them which aspects of your personality they would consider reliable. Do you keep appointments? Are you on time? Are you in the mood for a joke? Do you care for other people, etc. You could for instance draw a circle on a piece of paper and spend five or six minutes writing down any major or minor issues that come to mind. Your gear shift skills and the square encompassing body, emotions, thoughts, and relations will enhance the development of your integrity and inner core.

As already mentioned, modern developmental psychology and neuroscience have discovered the significance of the heart in the interaction between body, emotions, and brain. Through contact with the heart it is possible to enhance the personal centering. Moreover, it can help you develop a basic ability to administer the dynamic as well as the relaxed aspect of the heart's contact with the autonomic nervous system. This entails among other things that the contact with the heart can contribute to a more profound and grounded integrity.

Leadership Motivation

When leading other people, it is important to be conscious of your professional role and specialized knowledge. Among other issues this entails scrutinizing the motives driving the wish to work as a leader. Which conceptions, expectations, and dreams constituted the basis of your choice of education and professional field? Which values in terms of people, culture, and society were behind the choice? Obviously one could also consider questions like: What aspects can I easily relate to in a colleague or a co-worker? What do I find inspiring and joyful? What nourishes me? What do I find invigorating and where are my resources? These questions are evidently only related to one side of the coin. Naturally there are complementary questions relating to the other side. What challenges or provokes me? What exhausts me? What is it about my job or encounters with other people that annoys me in one way or another?

"All our actions have a universal dimension", the Dalai Lama says. Corporations and states consist of people who have developed some degree of integrity and centering. Human beings of flesh and blood are in charge. Presidents, managing directors, and leaders of many kinds and on many levels make decisions. However, the planet's seven billion people also make a number of individual decisions whose cumulative effect is enormous. Every single human being influences him- or herself and their surroundings in significant ways around the clock. Many people may not be aware of the influence they have, for instance on their own body or health. A significant part of the health problems in the world are man-made through behavior such as smoking, eating, drinking, stress, and lack of exercise. Perhaps around 80 percent of all expenses in the health care system are

generated by treatments and programs pertaining to these five areas. The extent of pollution, traffic, and war on the planet is determined by human beings, as are the sorts of food, beverages, and other physical substances and products that are manufactured, distributed, and consumed. The individual decides how to behave towards other human beings, whether it is a leader, a co-worker, a pupil or a patient. To a great extent we make the decisions about important aspects of our daily lives – and our influence is considerable.

We should learn the importance of this type of cause and effect – perhaps it could be an important element in our activities in day nurseries, kindergartens, and schools? We should also learn to see ourselves in an historical perspective – in which a human life is very short. Many economic models and arguments stretch only a few years into the future. Our memory is just as short. The individual human being, the individual institution and corporation are of great significance here and now, and everything that happens here and now influences the historical development. For this reason humanity's self-assurance and historical consciousness are of great importance. In more optimistic ways: many problems on the planet are created by human beings and their behavior, and hence many problems can also be solved by humanity via altered decisions and behaviors.

Resonance or a Heartfelt Response to Other People

Resonance is associated with the way in which we sense information from the surroundings (feedback) and the way we respond. Empathizing with another human being, decoding emotions, and sensing intentions, etc. are basic inborn traits. The receptive openness and the attention function are crucial in the early formation of internal

networks, which become the inner representational system. For the rest of our lives the resonance ability is a part of our membrane to the external world.

Resonance occurs when we adjust our conditions and primary emotions via non-verbal signals. Much of what happens in relations is determined by the resonance process, where one person's emotional state resonates in someone else. Matching relations generate resonance. Deep inside us and behind the fundamental experiences of who we are, behind the structures of the self and our interior representational system, there is a basic ability to open up and empathize with the other person. We have inherent abilities to sense other people, to participate in and feel a group process. Likewise we concurrently embody resources that further holistically oriented, organic, and sustainable processes.

In the terms of emotions, we harmonize and make an effort to match each other and through this contact we influence one another. Affective matching and affirmation are integral to being acknowledged and seen. It is precisely this kind of relational process, which develops the personality early in life, and which in adult life can be applied to give support to other people who undergo difficult transitions. Human beings are social individuals with abilities to interact, and even if the borders between the self and others are mostly distinct and clear, they are also open, more fluid and permeable than we tend to realize.

The human nervous system attempts to seek out and recognize other people's experiences by generating shared resonance fields. A permanent attentive empathy for people and the surrounding world is a central part of the feedback mechanism, a membrane which via its vibrations tells you what happens. Joachim Bauer describes the phenomenon in the following words:

When the brain registers another person, it avails itself of an internal simulation program. This is modeled with the same systems which the person uses to register him- or herself. This process is communicated by mirror neurons, and it occurs on a pre-linguistic spontaneous level without much prior consideration. This is the neurobiological basis of intuitive registration and understanding. Since this mechanism applies to everyone, the mirror neuron system represents a metaindividual, neuroanalogical format through which a shared meaningful intersubjective space is generated.

(Joachim Bauer, 2006)

The concept of resonance means that when something is activated, it generates vibrations which enhance the activity or the pulsation. Resonance plays an important part in relation to the brain's organization in the regulatory processes of the central nervous system, and hence also in humanity's internal experience. Human internal processes are organized by the nervous system via mutual regulation with other nervous systems. These shared experiences tend to create mutual harmonization, attachment, intimacy, self-regulation, and self-reflection. The nervous system develops via the subjective experience while it unfolds and not when it is recreated at a later stage. Interpretation and narratives can be a help to change, but not without linking up with the moments when contact and intimacy increase. As Daniel Stern says, an event should be lived with emotions and actions in the present real world with real people.

Self-regulation and Self-organization

> *Empathy is an attempt to experience the inner life of another while retaining objectivity.*

(Heinz Kohut, 1984)

Relations are formative, because they further the development of the brain's self-regulatory mechanisms, and when the individual interacts with others, the self-organizing potential unfolds. "The difference between self-regulation and self-organization is that self-regulation is an adaptation process, which changes the surface structure, while self-organization manifests as spontaneous deep structural changes in the nervous system", says Daniel Siegel (2006).

All types of inter-human contact, be it teaching, treatment, nurture, care, management, love relations or friendships, are supported by the transfer of information, which occurs via emotions. Marco Iacoboni writes that mimicking other people's facial expressions is one of the non-verbal ways in which you can help yourself understand other people's expressions and sense what happens inside them. Another important neural prototype for contact, learning, and empathy is, as mentioned, the mirror neurons, which replicate in us the state of mind, which we observe in another person. This means that the nervous system is capable of imitating events that occur in other people.

Mirror neurons exist in various parts of the brain and among other functions they serve to link motor actions with perception. The brain is constructed to perform mirror functions, and through internal mirroring of the sensed experience of what goes on in other people's minds, we are

able to get a profound comprehension of what other people understand. In this way we can participate in the other person's actions and mental world without imitating – just by being present and registering the other person's intentions. We participate in other people's joy and distress and this is actually the basis of empathy.

Developing Empathy

We hold our own perspective in mind while simultaneously imagining what it is like to be the other. In order to have empathy, we need to maintain an awareness of our inner world as we imagine the inner world of others.

(Cozolino, 2006)

One of the earliest descriptions of empathy was formulated by the German psychologist Theodor Lipps, who in the beginning of the twentieth century used the German word *Einfühlung* as a part of the description of the relationship between art and the beholder. According to Lipps, this also pertained to, for instance, the theatre or the circus. He described, among other things, that the operative function is the "as-if-experience" of being inside the body of the artist. Lipps used the example of a spectator in the circus watching an acrobat suspended from the ceiling. Part of what gives us the internal experience, which is integral to the circus mode, is that we feel that we are inside the acrobat.

Empathy is the glue that binds people together as couples, in groups, and in the intimacy which is of vital importance in the nurture of the newborn child. We are dealing with a field that originates in ourselves and which, via a number of

emotional contacts and mirror neuron activity, gives us an impression of what goes on in the other person.

There are many ways in which you can practice applied intimacy in order to vary the functions of mirror neurons, facial recognition, the decoding of body language, etc. A very concrete approach could be to find a sparring partner (a good friend or colleague) and then both activate your memory and select two emotional situations, a positive and a negative. You should select situations which you are willing to share with the other person. When you have found these situations, you should relive them as visually and in as emotionally animated a way as possible. Then you should face each other. Now you should choose who should begin re-remembering a situation – the person in question does not tell if it is the positive or the negative experience that is selected. The other person faces the individual who is going down Memory Lane. The spectator should have open eyes, and relax through deep breathing or paying attention to the heart, and attempting to listen in a neutral and friendly way without preconceived notions. After five minutes the two switch roles without exchanging words. After another five minutes you share what each individual felt and sensed.

This is a simple way in which we can become aware of continuous events occurring when we interact, i.e. the decoding of signals sent out by other people as part of an orientation process. Mostly this happens automatically and unconsciously.

Empathy is a relational process which can occur on various levels of contact and it brings people together. A basic knowledge of these relational processes is the cornerstone of successful interaction among professionals. In the following we shall take a look at an overview of some central elements.

Empathy

(Empatheia, from the Greek, meaning sympathetic understanding)

Empathy can occur on the following contact levels:

a) Primary empathy

> To feel what others feel – to be capable of reading non-verbal signals. This intuitive or instinctive empathy is primarily caused by mirror neurons.

b) Resonance – unanimity

> To listen in open and receptive ways – to be capable of tuning in to another person's wavelength. This requires focus on the other person's emotions.

c) Empathic precision

> To understand another person's emotions, thoughts, and intentions.

In other words:

a) To know another person's emotions (I pay attention to you)

b) To feel another person's emotions (I have a sympathetic understanding of you)

c) To react and act compassionately (I do something to help you).

Necessary Professional Knowledge and Internal Competences in the Development of Empathy

In professional work involving other people, there are a number of requirements with regard to necessary professional knowledge and internal competences pertaining to professional and inter-human processes involving empathy.

These requirements are:

1) Knowledge about psychological and social issues, including psychological defense, unconscious drives, and ambivalent motives (theories and practical knowledge)

2) Self-knowledge about your own feelings and needs – including the constant development of knowledge about your own problems

3) Empathy, i.e. the ability to sense and understand another person's emotions and psychological situation from within

4) Self-reflective approach, i.e. constantly exploring your own behavior when interacting with others

5) Self-discipline in order to further the ethics involved in the points 1-4.

In *Empati for Professionelle* (English title: *Empathy for Professionals*) the author Ulla Holm represents a three phase model for the empathy process (gleaned from Barrett-Lennard) as a help to get an actual overview, but also in order to be able to systematize, clarify, and establish a discourse about various elements in the process. Phase 1 consists of the perception and the processing of the other person's emotional message, where the end product is the empathic understanding. Phase 2 is the actual communication

and expressed empathy, and phase 3 represents received empathy. This encompasses among other things that the individual in need of help shares his or her experience and subsequent transformation of empathy.

Phases in the Empathy Process

The first phase: empathic understanding – empathic ability.

a) The affective – the receiver's/the professional's concept of emotions.

b) The cognitive – the receiver's processing of emotions, reflections, and perspectives.

Affective reactions, resonance, and conscious/unconscious perceptions are effective mechanisms in the context of emotional awareness. Over time a continual shift between the experiential/ emotional level a) and the cognitive level b) occurs.

In this context empathic ability means that a person has sympathetic understanding and moreover that she has developed the self-knowledge necessary to decode other people's emotions as well as her own. Furthermore, empathic ability involves the aptitude to change between an affective and a cognitive position.

The second phase: empathic behavior – empathic ability and the motivation to use it.

a) All relational actions, choices and decisions based on understanding another human being's emotions and

psychological situation, including for instance explanation, investigation, treatment, and care situations.

b) Empathic communication.

The third phase: continual validation and evaluation of phases 1 and 2.

This phase encompasses the reaction of the person in need of help to professional behavior. Not only conscious behavior in the form of interviews or questionnaires, but also what the person in need expresses, how he follows directions and other indirect information.

The Helper's Barriers

Ulla Holm also described four forms of barriers which the professional person may experience in the empathic process: a) profound implicit personality traits may become stumbling blocks, as may b) general unawareness, c) a lack of knowledge, or d) a lack of will:

a) Deficiencies in the early, basic construction of identity, including the development of affect, result in a modest ability to notice and differentiate various types of personal emotions – and an impaired ability to contact other people *(the most damaging impediment)*.

b) Unconscious conflicts can activate rigid psychological defense mechanisms – blind spots – prompting unconscious psychological defense – distorted perception *(experienced by the majority)*.

c) Modest introspection skills result in a lack of knowledge of the fact that emotions tend to represent knowledge *(experienced by the majority)*.

For those who have empathic ability, there is a fourth barrier:

d) A lack of motivation and hence a lack of will to use the empathy ability and the attending tasks.

Emotional Relations and Balanced Responsibility

In inter-human relationships there are basically two types of balanced responsibility: the symmetrical and the asymmetrical. In professional processes involving human beings it is important to be aware of the extra responsibility.

a) *Symmetrical relations*, for instance friendships or love relationships – where both members of the dyad (a relationship involving two people) demonstrate a consistent, predictable, sensitive, and perceptive communication.

b) *Asymmetrical relations,* for instance

    Leader – co-worker

    Teacher – pupil

    Therapist – client

    Parent – child

In these relations the former has the main responsibility for the relation and the obligation to be sympathetic towards the signals exchanged in the process. He or she functions as the person who has the central allegiance with the latter (be aware of the connection between the allegiance and the reflective function).

Shared Responsibility for the Totality or Having a Heartfelt Response to a Cause

The third corner of the internal side of the triangle concerns the totality and the attitude to the overall structure, which facilitates synergy and introspection. It focuses on human communities and on the ability to see your own participation as significant to the totality, i.e. achieving a full understanding of the significance of the commitment. The point is to realize that participating in an activity, whose significance stretches beyond yourself, generates an immediate, inherent, significant quality, which involves co-responsibility.

"We do not any longer see our minds as independent, separate, and isolated … we live surrounded by other people's intentions, feelings, and thoughts which interact with our own … our intentions are modified or come into existence in a dialogue with the experience of other people's intentions … Our mental life is, so to speak, created in community. It is this permanent, mutual, creative dialogue with the minds of other people, which I call the intersubjective matrix … Intersubjectivity is a condition of humanity and contributes to the security of survival in primarily three ways: it promotes the formation of groups, strengthens the function of the group and secures a group coherence by yielding moral,"

(Daniel Stern, 2004)

The Group – Community

We are born into a group, the family. In an evolutionary perspective Homo sapiens has survived and developed through the formation of groups and social processes. As individuals we are basically weak and exposed, but in communities we have extra resources. Research into the growth of the brain indicates that the development of the neocortex is closely linked to still greater and more complex social groupings.

The development of the brain to the level of complexity we enjoy – and that makes our lives so rich – depended on the establishment of the human family as a social and reproductive unit.

(Allman, 1999)

Humanity has an inborn potential to interact with the surroundings. Human communities provide a sense of belonging, of being a part of a greater whole, and having a

certain function. This means that you are known by other people, have their confidence, and experience cohesion. In other words, you participate in the ordinary, the normal, the banal, and the quotidian. In the midst of all these activities you find a unifying principle and your life makes sense.

In an evolutionary perspective we have developed as social beings. Much of what controls our brains today is based on neural circuits, which focus on understanding other people in group contexts and in social processes. These brain processes, among others, are active at early stages in life and flourish in the relation between the child and the person who takes care of the child. Daniel Stern describes three conditions, which are extremely significant to early intersubjective relations: 1) the ability to be part of a shared field of awareness, 2) the experience of having shared intentions, and 3) the ability to participate in other people's affective states.

Commitment to other people and participation in a group structure opens the door to a system larger than yourself and more comprehensive than the sum of its parts. Living systems are as previously described autopoetic and consist of three basic elements:

1) Framework or structure

2) Process or energy

3) Goal.

The meetings with the group or the organization (the framework), the obligation, the commitment, the introspection (the process), the exploration of the meaning of life or the goal engender a process of meaning. Contact, commitment, and responsibility are the answers to meaninglessness. To desire and commit to this volition is to generate meaning.

The social synapse is the space between us. Relations can create an internal biological environment supportive of neural plasticity.

<div align="right">(Cozolino, 2006)</div>

obligation   synergy

intention   diversity
attentive focus   confident openness

personal
work point

the smallest possible change
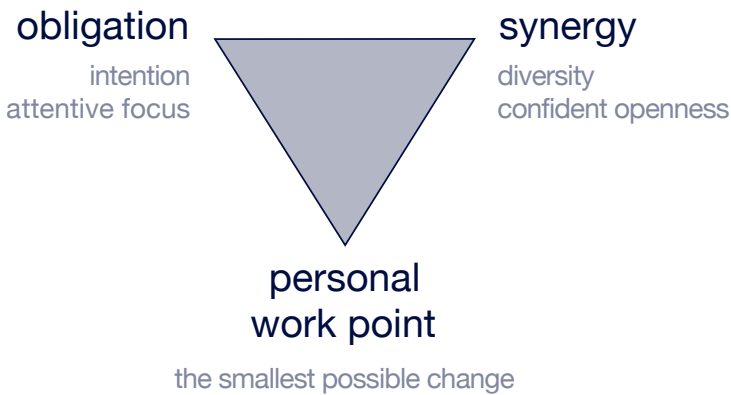
Figure 16: Three internal tools of change

Three Internal Tools of Change: Obligation, Synergy, Personal Work Position

The triangle pointing downwards – the tool triangle – embodies gear shift areas in every corner, i.e. *obligation, synergy,* and *personal work position*. These areas are interfaces where the internal grounding and the external active processes meet.

Obligation

On the triangular line between integrity and co-responsibility we find obligation. The ability to oblige is associated with the capability to make decisions and carry them out. Below the field of obligation we find integrity and above the location of shared responsibility. In terms of integrity, obligation represents the ability to take responsibility for yourself and the person you are. In other words, you commit to your internal core values and thereby generate interior grounding and centering. The field of obligation also points to shared responsibility for the totality and to the commitment you bring to the organization and other collective processes. This also involves the way in which you link your personal higher goals and issues like the meaning of life with organizational or collective processes where you share responsibility for progress that resonates beyond yourself.

One of the simple ways to explore yourself and your resources within the field of obligation is to analyze the formal and the informal experiences of obligations in your life. Take a few minutes to write down some of your major and minor formal and informal obligations that come to mind:

1) Formal obligations e.g. written agreements, for instance employment contracts, bonds, marriage certificate, children below 18 years of age, subscriptions, etc.

2) Informal obligations e.g. friendships, children above the age of 18, parents, work in associations, etc.

Synergy

The synergetic field is located on the triangle's line between resonance and shared responsibility for the totality. Synergy quite simply means to contribute to or cooperate for the greater good of the totality. Synergy occurs: 1) when a group of people cooperate about a shared goal (co-responsibility), and 2) when the individuals in the group experience the other people's difference (personality, professionalism, etc.) as a resource. The attitude would be open and listening, i.e. a resonant approach to each other, which furthers new and surprising perspectives on the task. Synergy refers to the phenomenon that the totality is more than the sum of its parts.

Personal Work Position – the Smallest Possible Change

On the line between integrity and resonance we find the personal work position, also called "the smallest possible change". The personal work position is the present conversion of the long term objective. On a concrete and practical level it consists of small exercises or agreements, which you make with yourself about for instance optimizing or concentrating on an important issue. If, for instance, you wish to be more creative (on a concrete or figurative level) you should make an agreement with yourself, i.e. fix a date and a time for when you want to do what, and then be very particular about keeping your agreement.

In terms of the depth structure of the nervous system of the creature of habit incarnate, we are not fond of changes. Changes are troubling and disturbing, because they give us a sense of not being able to evaluate and control the situation. The implicit surveillance system bases its assessments on the

accumulated experiences of the past, which are applied to predict the future. Unexpected or great changes challenge the amygdala and the surveillance system. For this reason you should make such small changes that the amygdala so to speak does not send out warning signals when you make a concrete agreement with yourself. This agreement might constitute a link to one of the major themes of change you are working on, for instance will, nurture, or creativity. If creativity is in focus, you could for instance make an agreement with yourself to paint on Wednesday from 7 to 9 p.m. It is important that your agreement is about something concise, so that you will know for certain, when it is completed. Moreover, you should not make any agreements, if in doubt about whether you are able to keep it. That is how small and concrete the task should be. The agreement works particularly well, when it is grounded in a visualization of the future – a focused objective.

Small changes in such a structure could over time create either a fertile ground for a major quantum leap, or you would realize that the many small steps in retrospect have led to a major change. In other words, it is all about defining the smallest change that can be introduced into the system in order to take a step in the right direction.

CHAPTER 8

A Gear Shift and Four Fundamental Aspects of the Mind

In this chapter the phenomenon of the gear shift will be introduced. The feedback mechanism in living systems is linked to rhythmical gear shifts. The point of the discipline involved is to become aware of changes of any kind, to be conscious of what happens, while it happens. Generally as well as specifically, this is a quite simple method to become aware of subtle changes. The four aspects of the personality (body, feelings, thoughts, and relations) constitute four sectors of the mind through which energy and information constantly flow. The explication of this phenomenon is a function of the qualification of the ability to sense yourself. Through training you can learn to recognize certain qualities in various parts of the self and become capable of developing the ability to sense other people.

Keywords: gear shift, professional, personal, private, body, emotions, thoughts, relations, music.

> *Getting to know another person requires that you know who you are. Although this might seem obvious and simple, knowing who you are involves an extremely high state of awareness that includes self-insight, curiosity, wisdom and a still point from which to experience the world.*

> (Louis Cozolino, 2006)

The sustainability of living systems is maintained through feedback – feedback from within and from the surroundings. The continual gear shift is a widespread natural *transition* or *rhythm*, which constantly takes place implicitly in life and in nature at all levels. We see it in the changing of the seasons, the circadian rhythm, night and day, and we see it in many types of organizations and planning, for instance teaching and pause, work and spare time. Once you begin to look, you see it everywhere, for instance in our veiled internal unconscious processes, where the constant balance between the two branches of the autonomous nervous system (sympaticus and para-sympaticus) are always coordinated and in sync with the fluctuations of the heart rhythm. The heart constantly changes gears, as does the breathing function – *breathing in – pause – breathing out – pause – breathing in – pause.*

Activity, expression and dynamism are always followed by relaxation, regeneration, and introversion. After all the words, thoughts, and opinions, all will be quiet, if you listen. It is this organic pulse or breathing, this gear shift in the activity-and-rest rhythm, that ensures that the implicit, self-organizing processes in human beings and in nature are allowed to live, take effect, and become sustainable. The living system senses the world and itself in this way.

A Gear Shift and Explication of What Happens

The concept of the gear shift is important to the practical development of the ideas and the directions discussed in this book. The concept of changing gears means to become conscious of any kinds of changes, and to understand what happens while it happens. Changing gears is a quite simple method of paying attention to changes in general and specific patterns.

The autonomic nervous system, which performs the central function of maintaining the body's internal balance through the homeostasis, provides an opportunity to learn about sustainability in a human context. The autonomic nervous system is also, as previously mentioned, the neurophysiological basis of sensation. One of the simplest ways to link up with the homeostatic process is through the two branches of the autonomic nervous system: the sympaticus and the parasympaticus. The sympaticus controls the activation of responses to threats and other kinds of high level energy outputs, for instance through the increase of the heart rhythm. Conversely, the para-sympaticus regulates the subduing of the heart rhythm, thereby contributing to relaxation, sleep, and regeneration.
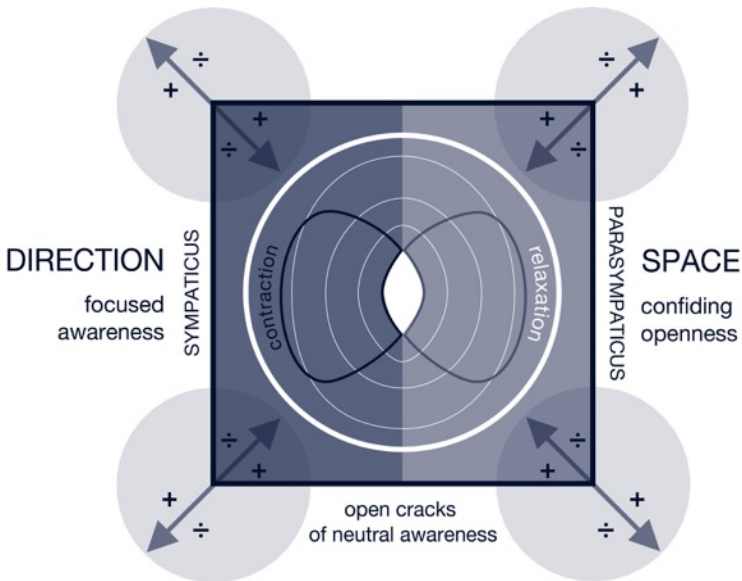
Figure 17: Feeling both the sympaticus and the parasympaticus

The body has an implicit balancing system, which includes the autonomic nervous system. Via the physical system, the heart, and the limbic system, the autonomic nervous system constantly scans for changes, a crucial element in the feedback system, which ensures sustainability over time. The organic rhythmic process of gear shifts between the sympaticus and the parasympaticus is in fact the key to sustainability.
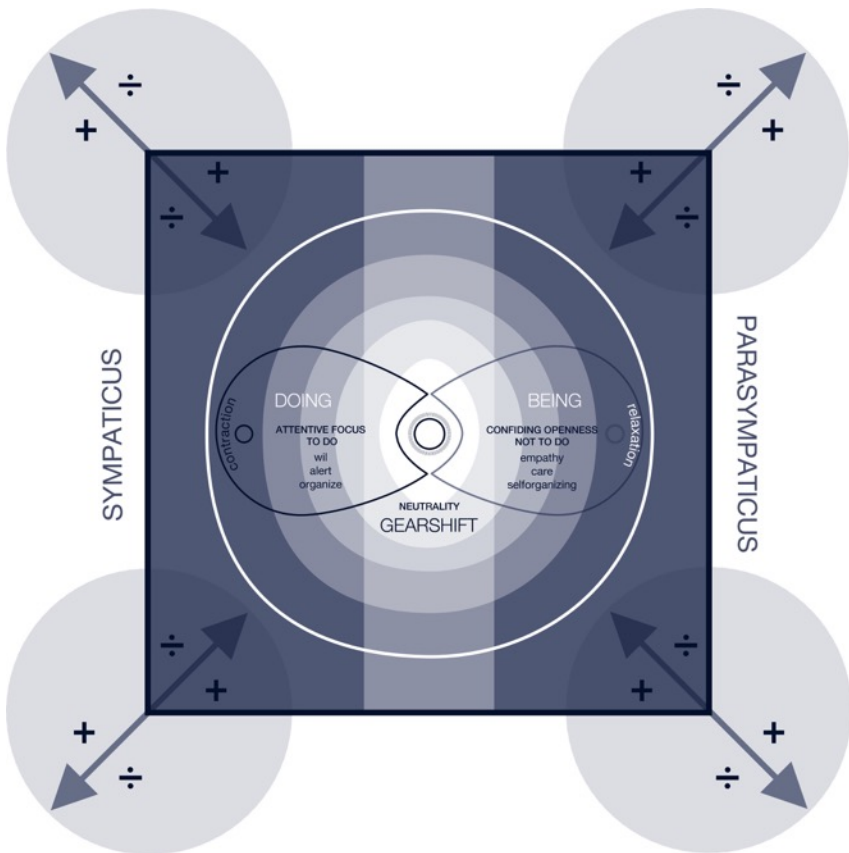
Figure 18: Relaxed – neutral witness – tense

The continuous organic and automatic shifts between the two branches represent an opportunity for optimization through reflection. Even the reflective process can be trained as a gear shift. The main point is to recognize the functions of the sympaticus and the parasympaticus. This ability makes it possible to discover a third function, which is a conscious integration of the essence of the two basic types.

The sympaticus supplies *attentive focus*, and the parasympaticus contributes *confident openness*. This blend generates an *integrated registering witness* function with an open neutral attention. As long as you can keep the balance, i.e. not give preferential treatment to either side, then it will be possible to witness more aspects of the ongoing events. On this basis the willful attention manifests in three basic ways: 1) a neutral *registering* mode, 2) a relaxed *self-organizing* mode, and 3) a focused *organizing* mode.

In the first category we are in neutral gear, i.e. the ability to be neutral and register reality as it is. The second category represents a relaxed gear (the parasympaticus), which entails surrender to the self-organizing forces, letting go, and practicing not being in control. The third category corresponds to an active gear (the sympaticus), which encompasses focus, concentration, and action – the wish for proactive intervention in order to change reality.

We can increase our focus on transitions by using exercises and training in conscious attention. To the individual human being, awareness of fundamental internal aspects of the self is a disciplined exercise in sustainability. Varying the sensations and the discourses of body, emotions, thoughts, and relations, as they are experienced from within, reinforces the ability to get a more comprehensive feedback from one's own system. This also contributes to a development of the ability to be attentive and contact other human beings. From

an overall point of view, feedback from internal and external perspectives is improved, and over time a more basic flexibility is generated in the adaptation and adjustment of life processes.

The gear shift and the square embodying the four aspects of personality (Figure 18) encompass the ability to sense yourself and reality. It concerns the development of the ability to see and sense *who you are and where you are*. The point is to learn to recognize qualities in various aspects of the self, to listen and find your bearings from within, in a given moment. Sometimes we need to get behind all the sounds, the words, and the emotions, and listen to the silence found there. Such approaches will teach us to become more attentive listeners, who are confident contacting other people, and open to human beings and the world.

Speech is silver, but silence is gold. This proverb is found in many languages and supposedly it was first formulated in Arabic. Silence is the vortex of language, says the Indian writer Debashis Chatterjee. Silence conceives, prepares, and gives birth to language. Language is not just absence of silence. Silence is the fullness of the unspoken intelligence. Silence is the full potential of language. Words and sounds are the material, concrete, expressions of these potentials, but silence integrates language, and endows it with meaning and content. Silence is embryonic language. But in order to understand how language communicates meaning, we must understand silence. Words by themselves do not create meaning, but the pauses and the spaces between the words do. Communication via language occurs as a result of an exchange of opinion. Such an exchange presupposes shared values with regard to the issues exchanged, and these values can be found in silence. There are two dimensions to freedom of speech. The freedom to speak and the freedom

to be silent. Freedom of speech allows us to say what we find true and appropriate to say. Freedom of silence gives us the opportunity to explore the deeper internal voices who speak their mind. Speaking requires energy. Silence requires energy. The energy is integrated in silence through wordless awareness.

Listening and being silent are two sides of the same coin. Silence is the instrument or the mode through which you listen. Listening and learning are associated and require attention, and attention is silence. Authentic communication can only take place where there is silent listening.

Words are expressions. Silence is the base of experience. When our expressions truly represent our cumulative experience, our communication is authentic. The spoken word comes in two versions. One version is verbal, i.e. sound. The other version is pre-verbal, i.e. silence. On the preverbal level words exist as quiet mental vibrations, and if we practice silence, we can hear this mental sound. Silence is a way of cleansing the mind. Chatterjee formulates this concept by saying that silence is the blackboard on which we write the words. If we do not understand what this blackboard looks like, and how it is constructed and compounded, then we cannot write properly. Moreover, if we do not understand silence, we cannot fully understand our opportunities to communicate. Hence we must get to know the blackboard by practicing and developing the ability to be silent.
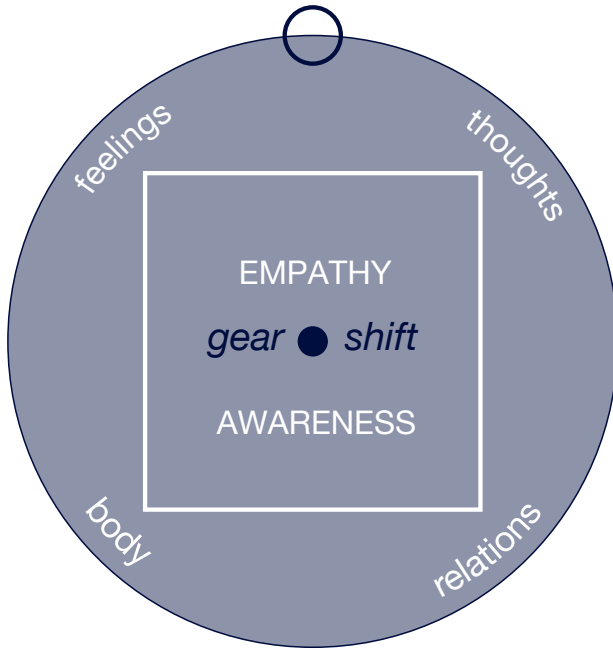
Figure 19: The square representing the gear shift

The Square

In the gear shift process the central ability is to optimize the contact with ourselves, with the central point of orientation, our identity or the position from which we experience ourselves. This function is also called the mind or simply the experience of being an individual. I sense, experience, feel, think, and make plans. I have relations and I orientate myself towards the world from an internal position.

Our mind is linked to our memory system and personal biography, and hence grounded in the past. The way in

which we are present in life here and now is associated with the current of energy and information which flows through us as a wave of sensations, emotions, thoughts, relations, and contacts.

Most of these types of gear shifts almost always occur without our explicit awareness. We don't realize that a change of gears is in process, we are simply not aware of it.

The concept of the gear shift stems from research into states of burnout in the late 1970s and early 1980s. Burnout is a stress reaction that occurs, when you work with other people. At the time burnout was associated with the fact that professional work with very ill or old people, requiring profound and demanding commitment, contributed to the draining of co-workers, who were actually very enthusiastic about their jobs. In order to prevent burnout, courses were designed in which the employees were taught how to take the edge off this type of stress. One of the exercises focused on completing your work on a mental level, to change gears or round off the day, before you got home or just after getting home. The idea is that one should consciously become aware of the circumstance that "now I shift gears" from a work situation, characterized by some demanding content or other, to another situation. Now I am at home or now I am wherever I am. Evidently such training does not remove the demanding and taxing work. The idea is that the actual conscious awareness of the change of scene has a delimiting and defining effect, which could be effective.

In our context, the gear shift is a much more comprehensive discipline than we describe above. The point is to be able to change gears on many different levels in terms of our own internal or external states related to processes and people. In many cases research on environments of learning and concentration demonstrates that the act of preparing to

receive instruction, for instance by listening to a short piece of music at the beginning of the learning session, increases the focus and the reception of the learners – a small gear shift in practice
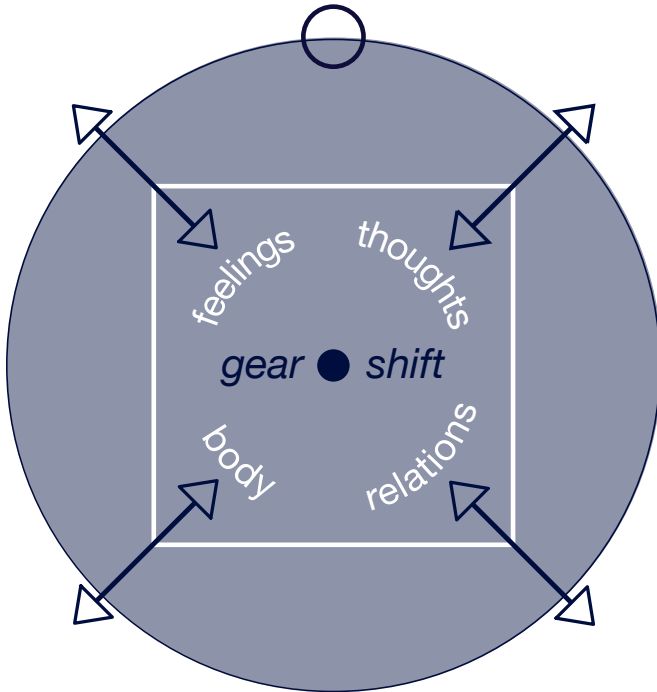
Figure 20:

Internal and external features of the square representing the gear shift

The Square Representing the Gear Shift

The square representing the gear shift has internal and external features. The external side reflects the extrovert aspect of each of the four elements. The external side is hence the *body's* activity and active aspect, while the internal side reflects introspection, relaxation, and rest. In the context of *emotions*, the external side mirrors extrovert activities of any kind, kindness, helpfulness, and emotional contact, while the internal side reflects centering, abandonment, and confidence. The external side of the *thoughts* represents cognitive activity, verbalization, planning and conceptions, while the internal aspect reflects itself silently. Finally the *relations* corner focuses on having contact, dialogue, and exchange, while the internal side represents the inner sense of cohesion. The internal side is administered by the parasympaticus, while the external side is basically controlled by the sympaticus. Tensioning is about acting and doing, and relaxing is about being, containing, and opening.

Proficiency in gear changes involves the development of a daily or weekly routine in which you sense yourself. You train an ability to recognize from within the signals sent by your relaxed *body*, and you exercise the skill to feel what it is like to be yourself in a relaxed and calm body. The competence of recognizing what it is like to relax your *feelings*, to surrender emotionally to trust and absorption, is part of the gear shift. In terms of *thoughts*, there is a focus on practicing attention, on allowing thoughts to come and go, and actively observe silence while not supporting thoughts and imagery formation. The *relations* corner focuses on internal recognition of the place where you feel contact with other people, where you register the "we-

feeling", where you feel that you are part of a group or just realize that you share something with others, and that you are present without needing to take action.

In a longer perspective the gear shift concerns a development of the ability to recognize your basic internal framework from an introspective position. Changing gears means to have access to some acknowledged internal spaces, an interior field of orientation, whose basic parameters you know. Through the shift the parameters become an internal compass that guides your behavior from the inside out, helping you develop contact, whenever relevant.

In a simplified or metaphorical way you could say that the body, the feelings, and the thoughts, are supported by the tripartite structure of the brain: the brain stem and the cerebellum, constituting the physical sensory brain, and the neocortex, which is the thinking brain. The last corner of the quadrangle, i.e. the relational, focuses on the basic issue that our brains and systems are made for relational dialogue and process. Alternatively, the sum of those three becomes a systemic, relational, synergetic progression, which on a dialogic level is open, receptive or contact-seeking. In a professional context you are your own instrument. As mentioned, one of the keys is to know yourself. One thing is to have excellent professional skills, but self-knowledge is a completely different fundamental issue. The reason is that when you have contact with other people, it is precisely the internal landscape that is affected during the encounter. When you, for instance, meet people, who in one way or another are at the mercy of their emotions, then it is the emotional tensioning, the physical reactions or the complex thoughts associated with the chaos of the person in question that affect your experience. Only when you have a basic knowledge of your own core identity, when you know the internal experience of your *body, feelings, and thoughts*, do

you have a chance to recognize some of the aspects of what happens when meeting other people in the continual match-and-resonance process, which is always a part of these meetings.

Sustainability and Borders between the Professional and the Private

Such commitment to internal processes means that you gradually become better at looking after yourself and at being attentive when interacting with other people. You will also improve your ability to distinguish between being *professional* and *private*. This improves your basic self-knowledge and thus defines your limits. You also get a more precise sense of the extent to which you bring other people into your life. It goes without saying that this is relevant for leaders who constantly interact with others in a professional
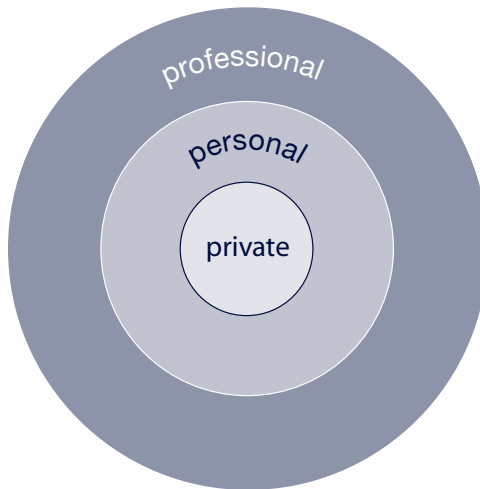
capacity.

The Professional

The essence of professionalism is to be inseparably bound up with the theories and the methods of the profession. It is intimately related to your education and its professional and theoretical foundation. Moreover, it is associated with professional practice and your own experiences derived from such a practice. Finally, there is a significant correlation between the professional sphere and what you are actually employed to do.

The Personal

Being personal involves all the issues that are a part of your identity, independently of your professionalism, i.e. values, the structure of your character, your commitment and mood, in other words integrity, which we shall examine closely in the present chapter. The personal sphere encompasses balance and centering, abilities to contact other people, paying appropriate attention and feeling resonance. Personal resources are important and often in demand in communities characterized by a high level of knowledge and information.

The Private

What constitutes the private sphere? On a concrete level the private is what happens in private spaces, in your home or in your mind, i.e. thoughts and emotions, which are entirely your own, and which you are not obliged to share with anyone. They may be religious or political positions, issues related to the innermost layers of the soul, which you

wish to keep to yourself. Naturally they can also be a space that you share with another person.

The borders between the private and the personal easily become fluid and unclear, among other things because your personal qualities interface with your private sphere. These limits are always important, and during the last 10-20 years – especially since the advent of mobile phones, e-mails, and Facebook – it seems the borders are increasingly difficult to maintain – resulting in increased risk of stress and burnout. These borders are also important to us, since this book directly encourages the reader to explicate his or her inner maps. The purpose is to reinforce all aspects of the feedback mechanism, including delimitation. However when and if these borders become unclear in the context of your managerial work, your leadership responsibility increases.

In the following we shall introduce some ideas that will help you explicate and reinforce the distinction between the professional, the personal, and the private. First it will be necessary to create an overview of the actual professional background, i.e. education, supplementary training, experience, and position. Next you need to look at how you use your personality in your job, for instance by finding and describing some quite concrete situations or modes, in which the personality reflects on the professional activity. Finally, it is a good idea to clarify the modes or qualities that define you as a private person. It might also be a help to define and describe work-related and organizational frameworks that support the borders between the professional and the private, and then of course looking into the ways, which you yourself consciously use to maintain the borders, and protect your integrity.

The Body, the Feelings, the Thoughts, and the Relations

There is great variation in the ways we are present and attentive here and now. Each of us has found some basic mode or pattern in which we orientate ourselves, first internally and then towards the world. Some people tend to identify first and foremost with their body. They experience themselves and refer to themselves on the basis of the senses. Others again identify with their emotions. They tend to experience and describe their internal condition with emotional concepts. Some are deeply involved in internal dialogues and thoughts, and describe themselves and their universe in intellectual discourses. Yet others constantly mirror themselves in other people and are so controlled by external issues that they experience the world from positions outside themselves. It is quite common to identify with a part of yourself, yet in a long-term perspective this results in limited self-knowledge. Another effect will be a limited use of internal resources and the opportunities for feedback.

The Body

Proprioception is a neurological term that covers the registering of the body's own state of mind. The nerve cells of the cerebral cortex, which receive signals from five sense organs, are called sensory nerve cells. The areas in the cerebral cortex specializing in monitoring the condition of the skin, the subcutaneous connective tissues, and the muscles, are called somato-sensory areas of the cortex.

(Joachim Bauer, 2006)

The monitoring and the sensing functions of the body constitute the basis of the brain's rational decision processes. Prior to the formation of words all kinds of sensations unfold, participating in generating and shaping the internal subjective experience. Plainly speaking, one could call the amygdala the *body-self*, because the amygdala's continual scanning and awareness of the senses uses all sectors of the body's systems as assessment parameters. Antonio Damasio's theories about somatic markers explore this phenomenon. Body sensations refer to physical changes that take place in the body and the nervous system prior to a feeling.

The Feelings

Feelings represent dynamic processes engendered in the socially influenced appraisal processes of the brain.

(Daniel Siegel, 1999)

Emotions, feelings, and moods are part of the crucial flows of information in and among people. We use feelings to orientate ourselves, to assess if something is positive or negative. Feelings guide the energy currents in our consciousness, and add qualitative depth and variation of values to the internal representations. The basic universal feelings, also described by Darwin, are presently the subject of comprehensive research. Paul Ekman was at the forefront of this research project and he disseminated the results to a wider public. The most prevalent of the basic universal

feelings are fear, anger, loathing, grief, surprise, and joy. These emotions can be found anywhere on the globe, irrespective of culture and background. They are associated with subliminal neural processes in among other places the limbic system, and they are linked to the facial muscles.

The Thoughts

The fact that the major language area (Broca) of the human brain is also critical for imitation and contains mirror neurons, offers a new view of language and cognition in general … Our mental processes are shaped by our bodies and by the types of perceptual and motor experiences that are the product of their movement through and interaction with the surrounding world. This view is generally called embodied cognition, and the version of this theory especially dedicated to language is known as embodied semantics. The discovery of mirror neurons has strongly reinforced the hypothesis that cognition and language are embodied.

(Marco Iacoboni, 2008)

Thoughts are generated on the basis of the body, as well as internal and external sensations, and are associated with emotional attention patterns. Thoughts come and go as a function of the self-organized, implicit sensing-feeling-awareness-process which unfolds perpetually. You cannot choose not to think. You can choose to realize that you think. Thoughts are associated with the acquisition of language. Thoughts shaped as words and sentences are created by the left hemisphere, which attempts to make sense of cause-and-effect processes. The left hemisphere uses logical-rational deliberations to distinguish between right and wrong, and finds

it difficult to integrate ambivalent or conflicting information. The rational thinking is often not conscious of non-verbal signals and the greater social context. The cognitive images in the right hemisphere are more subdued and supported by illogical, nonlinear, and lyrical thoughts and images associated with moods. Thinking is a central element in our processing of information, and it often occurs subliminally.

The Relations

> *When we experience another human being's feelings, our nerve cell network resonates, and the other person's emotions are reflected and experienced in our mind. The ability to feel sympathy and empathy is a function of the fact that our own neurological systems – located in various parts of the brain's emotional centers – spontaneously and instinctively reconstruct the emotions which we register in a fellow human being. In the other person's face we see a reflection of our own human existence. Only when we mutually recognize and acknowledge each other as responsive individuals do we become fellow human beings.*
>
> (Bauer, 2005)

We match the feelings of our interlocutors by creating links with primary emotional states. Resonance occurs when we adjust our conditions, our primary emotions by sharing non-verbal signals. Much of what happens in relations depends on a process of resonance, where one person's emotional state resonates with someone else's. Matching relations generate resonance.

When we perceive another person's feelings or emotional expressions, this type of condition is automatically generated

by our mirror neurons. For many years it has been common knowledge that all mammals have a highly developed limbic circulatory system designed to decode other individuals' internal states. Moreover, in primates mirror neurons have facilitated an outstanding ability to generate internal states that match those experienced by other individuals. The brain is constructed with a mirroring reflex, and this function enables us to get a profound understanding of other people's emotions, since our brain simulates the experiences we sense other people go through. One could call this mirror function the foundation of empathy.

Perhaps you should give priority to your internal voices before listening to another human being. Only when an individual is in touch with his or her self, via an internal dialogue, can that person truly listen to another human being and formulate authentic statements. Prior to this condition, internal restlessness and noise prevail to the extent that it is difficult to listen to another human being. This means that one does not hear what the other person says. At most, you project your own interior images, perceptions, ideas, preconceived notions, etc. onto the other person whom you pretend to listen to. A leader, who listens to an employee or a colleague, should on such a premise first listen to his or her own interior impulses, etc. In so doing, the leader gets in touch with him- or herself and becomes aware of the background noise that surrounds his or her own voice. When this noise has subsided and the internal calm is restored, the person can listen.

Like language, listening is a multidimensional activity involving the *factual*, the *intentional*, and the *transformational*. Language is a formulation of the factual, while the intentional dimension focuses on paying attention to the deeper meaning of a statement. Finally there is a much more complicated transformational dimension. According to

Chatterjee, language embodies alchemy, and this alchemy can transform *the heart and the mind of the listener*. Via a process of empathy a transformation occurs in the listener. When you listen with profound attention, you feel the spiritual momentum behind the speech. In other words, the person listens with his heart. The listener no longer focuses on the actual words or on the intention behind the words, but on what Chatterjee calls "the raw energy of the words". The conscious person has an ability to listen simultaneously in three dimensions: the factual, the intentional, and the transformational.

> *In order to have empathy, we need to maintain an awareness of our inner world as we imagine the inner world of others.*

> (Louis Cozolino, 2006)

Music

Music is an excellent facilitator of a concrete gear shift, such as an introduction to a meeting or a grounding process before teaching. With only four to six minutes of relevant music it is possible to contribute to the creation of a soft, but distinct transition from one situation to another, resulting in a distinctively increased focus.

The language of music speaks directly to the body and the emotions, and can hence contribute to generating a calm relaxed atmosphere here and now. When we listen to music, our levels of awareness and attention, core qualities in processes of learning and regeneration, are increased. This is another aspect of the gear shift. A group's shared experiences of music can bridge differences and spark a sense of community. The point is to explore the expanding,

relaxing, and emotionally charged aspects of music and create soundscapes which generate calm, harmony, and attention. Music can in this way support the actual learning processes.

Research in neuroscience confirms that the brain has a *music center* associated with a number of areas, particularly in the right hemisphere. These areas are also linked to comprehensive emotional processes. The influence of music on emotions and consciousness can be extremely efficient. Research moreover points to the fact that music has a positive influence on the sensory apparatus as well as the coordination between the hemispheres via the stimulation of the corpus callosum. This means that concentrated, partially oriented, and rational brain functions and learning are supported by music, which opens up more holistic and intuitive approaches in the brain.

CHAPTER 9

Time and Sustainability

This chapter focuses on time as a phenomenon – time in different spaces, in different forms of contact and attentive presence, time as a chronological progression, and time as expanded open moments of sensory presence. We shall also look at ways of increasing our awareness of the fact that quality in life, leadership, and sustainability all depend on the ability to prioritize and make the most of your time.

Keywords: time, chronos, kairos, memory, meaning, the basics of existence, past, present, future, feelings, and will.

The Time

> *A human life involves acquisition of experience through actions, feelings, and thoughts. These occur over time – hence time is our ultimate limited resource. For this reason decisions on the ways in which we spend our time are extremely important.*
>
> <div align="right">(Mihaly Csikszentmihalyi, 2005)</div>

Speaking in the same vein as the quotation above, Mircea Eliade, the French-Hungarian specialist in religion once said that time is humanity's most profound existential dimension. Time is intimately associated with human existence. With regard to the individual human being, time begins at the moment of birth and ends at the moment of death, which puts an end to existence. In a human context this is evident, but even more so in corporate contexts. In leadership theory and practice we focus on the birth and growth conditions of the corporation, but to a great extent we refuse to discuss death. Death is a catastrophe to be avoided – almost at any cost. However, the chronological time plays a significant part and in many ways we consider and plan the lives of corporations as if there were no end to chronological time.

When a human being begins to pay attention to his or her personal feedback system, the internal contact will generate a focus on planning and prioritizing. Time and meaning are mutually dependent and reflect each other. Meaning is a quality, meaning is significant, it gives time a direction and allows for attentive presence.

The ancient Greeks had two words for time: *chronos* and *kairos*. The first refers to chronological or sequential time, and kairos signifies the transient moment in which something specific occurs. You could say that chronos is quantitative time, while kairos is qualitative time.

Chronos – the Chronological Time

When we relate to the concept of time, we usually refer to chronological progressive time – chronos. Chronos is the planning – and the planned – timeline; it is the calendar and the popular "fight against the clock" inspired by time

management. Controlling time is associated with chronos –
the chronological, linear, progressive time. All seconds are
equally valuable and in this way the clock to a great extent
dictates the rhythm of our lives.

PAST   PRESENT   FUTURE

Kronos – linear cronological time
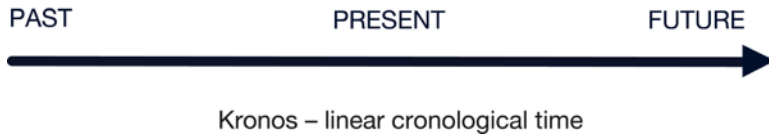
Many people find that life and the future are planned and
controlled by coincidences and the habits of the past. The
Dalai Lama explicates this situation with the words: "If you
ask people about the objective of their lives, very few
people can provide a clear answer, even if many wish they
could". Hence the plans and agreements of chronological
and linear time can create a pressure which momentarily
obstructs our focus on the objective. Valuable and
significant issues can be incorporated in long-term priorities
and plans, but since the evaluation of the past and new plans
for the future continually occupy the present, life could easily
lose depth as described by John Lennon: "Life is what
happens to you while you're busy making other plans".

Kairos, the Attentive Moment

Kairos, or the advantageous moment in which to act, can
easily be outmaneuvered in a busy day-to-day life. Some
cultures have a different approach to life, which is based on
kairos. We are talking about quality time which is
experienced as an expansion of regular time, as opposed to

chronos, which refers to time spent, and the frequency of our focus on the equation between time and money. In contrast we voice the concept of kairos time, when we ask: "Was it fun?" we do not ask how much time was spent; we are more concerned about the value, the quality of time. In a corporate context it is almost inappropriate to ask about the quality of time, the value of the moment. In the contexts of leadership and corporations, new initiatives have surfaced. These initiatives have focused on discussions of the quality of working life, the quality of the moment, and the atmosphere of the meeting. However, in general all concepts referring to leadership and organization measure phenomena over time, for instance turnover, costs, surplus, hiring and firing, sick leave, and stress, and when these factors are not measured in numbers per time unit, it is general practice to find a mutual common denominator and formula. Benchmarking in terms of accounts and related key figures are the most important and most frequently applied chronos related figures and measurements in the corporate world.

PAST   FUTURE
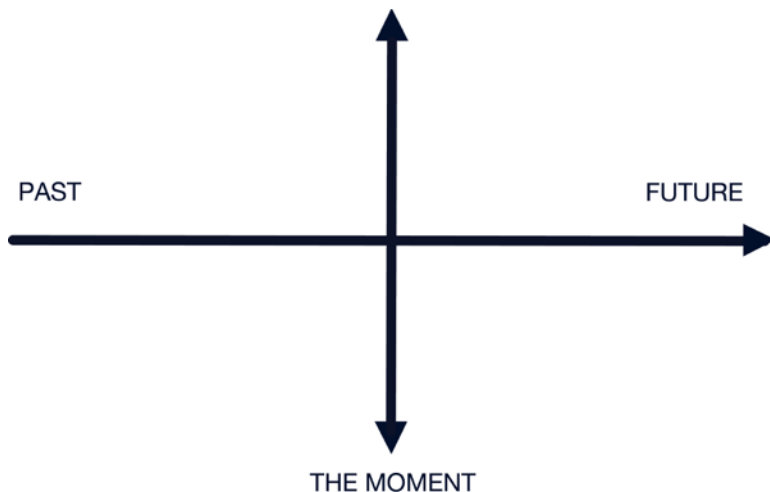
THE MOMENT

Kairos – in the moment

One could ask: why is time so important in the context of life and leadership? The answer is that time is the traditional medium in which priorities, planning, and executive issues are expressed. Time is a basic organizational structure in life. We sense life moment by moment. We remember hours, days, and weeks, we recall some of the events of the past, and we have plans and wishes for the future. Our experience tells us that the future usually arrives and becomes the present.

Time and Memory

Time originates in an interface between on the one hand our continual "sensing the world", and on the other our cogent brain. Time is linked to language and the memory systems in the brain. In a corporate context, comprehensive registration and measurement systems are established to process data acquisition, a reference to the extent to which we are capable of constructing efficient and precise memory systems. In the context of data acquisition and leadership there is an opportunity to include the quiet dimension of quality and meaning, but we rarely do so, because we focus on economically related data and apply these data to process simple balance sheets with an economic focus and/or for chronologically oriented leadership purposes.

The experience of time is associated with the ways in which our neural structures and our memory systems constantly attempt to predict the immediate future on the basis of past events and experiences. As mentioned, we are born without a central consciousness, without a self which is aware of

events around us. On the contrary the first 12-24 months of a human life are governed by a wide range of automatic processes lodged in the depths of the nervous system. The emotional processes are administrated in the amygdala region, and this occurs without the formation of conscious memories. The reason is that the processes controlled by the hippocampus, the ability to find your bearings in time, space, and place and generate meaning, mature only after 18-36 months. This means that humanity prior to the development of the hippocampus has an experientially implicit memory structure, which to a certain extent is timeless. When the hippocampus has developed and our storytelling memory has become functional, we begin to get an actual experience of time.

As the autobiographical memory is shaped in the individual human being, the basis of the self and the internal reference point, which we call integrity, are formed. The self becomes present here and now, it is grounded in the qualities of the past, and the future arrives via the intentions, wishes, and plans synthesized by the organizing functions of the frontal lobes. The same goes for the corporate context. Here we experience how the so-called mission-vision processes are systematized in such ways that you constantly update a system of integrity, which is also related to visible and recorded visualizations of future conditions. This could be the result of completely mechanical processes in which past structures, mind-sets, and benchmarking conventions are prolonged into the future in uncritical and unreflecting ways. Alternatively it can be a result of conscious and creative meetings with the imminent future, reflected in the present and thereby influencing our decisions and behaviors.

Narratives, i.e. life stories, have the basic structure of a beginning, middle, and an end. The function of the self in

the mind, which participates in the organization of the memory and the understanding of human life, is called autobiographical memory. This function builds and maintains the inner experience of cohesion by remembering and decoding past events, which in this process undergo continual evaluation and become the constitutive basis on which the present and the past are founded. Hence the autobiographical memory organizes the understanding of life from the middle, which exists here and now, with the beginning (the past) in mind, and plans for a possible future.

The opportunity to develop a conscious attitude to habits and experiences is associated with the previously mentioned willful attention. The freedom to choose an alternative solution creates the intentional latitude which generates plans, projects, and actions. This locus is intimately connected to the actual attention function. The latitude and the willful attention function are the essence of leadership. The interesting question in focus concerns the ways in which we define and delimit the latitude and the opportunities within which the leaders operate, as well as the question on which values (and thereby which feelings) the willful attention is based and the resulting modus operandi.

Tenses

The model in Figure 22 demonstrates the ways in which we apply time in this context. We perceive three kinds of tenses:

1. Above *the present*

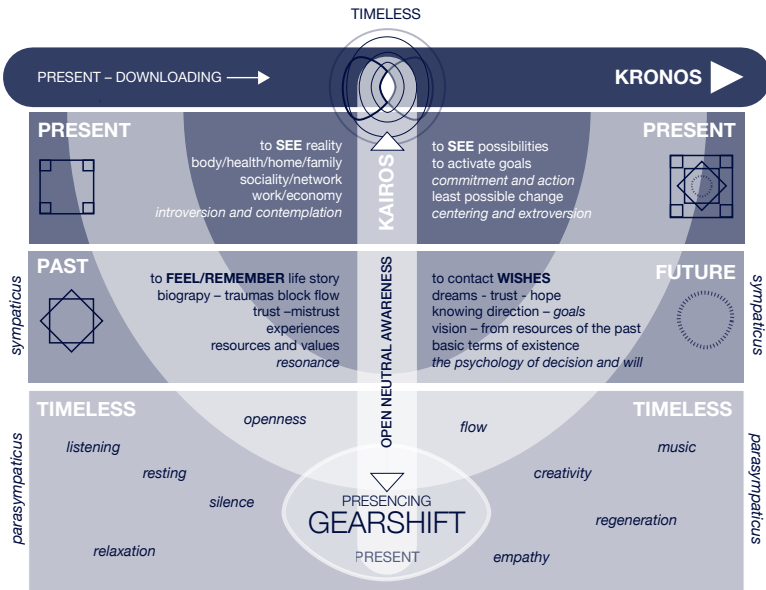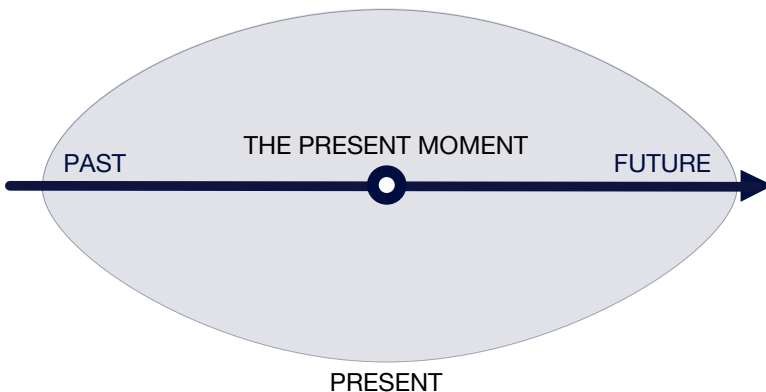2. In the middle *the past and the future*

3. Below *timelessness.*

Figure 22: Time – chronos and kairos – and the U

In practice there are only two tenses: the present and timelessness. The present is a process we constantly experience – right here and now. Timelessness unfolds when we sleep tight at night. Here time is switched off and timelessness rules. This is also the case when we are so profoundly engaged in a practice that we lose our sense of time. In a corporate scenario timelessness does not exist. A corporation never sleeps. The benchmarking systems and the objective measurements in a corporation never rest, there are always interests and dividends, and income and costs are constantly in process. However, leaders and employees sleep and occasionally chronos and kairos intersect. This can occur for instance in the cases where quality and time suddenly acquire another meaning and significance to people in the organization, and where people (boards, leaders, and co-workers) get ideas or feel a need to create a new orientation of the corporation.

Besides the present and timelessness, there are naturally also the past and the future, but they are abstractions, or in the words of Mantura and Varela: "We exist in the present; past and future are manners of being now". The past has been and gone and will never return – yet at the same time it is deeply ingrained in our mind-sets, feelings, memories, and habits. With regard to yearnings, dreams, expectations, and plans, the future is always present. However, the past as well as the future are also constantly present here and now. In a manner of speaking, we perceive our present reality in the light of experience and hence the lenses of the past. Moreover, a great deal of the past and our experiences are associated with implicit subliminal processes. Residual problems and unresolved conflicts in the past generate links between energy and emotions, and are retained by the sympaticus. In the process of integrating past events, methods like the gear shift and creative processes will be able to link the *parasympaticus* with these old residual

problems, and thereby over time release the energy frozen in old conflicts. The precondition for attentive presence here and now is that your basic reality – the past in which you originate, and the expanded present moment in which you live – are accepted for what they are. Possessing a basic knowledge of yourself and your origins, and a general balance in the life you live, would further this process. These fundamental issues provide better conditions for the development of attentive presence here and now, self-knowledge, and contact with other people. Or in the words of Daniel Stern: "If the present moment isn't rooted in a past and a future it will just flow along as a meaningless fleck".

Figure 23: The present, the past and the future

In a corporate context there is also only here and now. Even so, almost all current corporate concepts are characterized by either a past or a future orientation. The accounts refer

to an historical period, just like surplus refers to a phase in the past. On the other hand the budget refers to the future and these past and future oriented concepts and accounts include only phenomena and issues that can be measured in currency. The so-called balance sheet refers to a status, a point in time. You stop and count, not what can be counted and measured, but what must be counted in accordance with norms and traditions. In this context you count only what can be represented by a common denominator, i.e. money. If, however, you break norms and traditions, like the American author Joseph Bragdon, then you could talk about measuring and counting life as the most important issue, i.e. talking about and measuring living assets before you measure and sum up the material, non-living assets. As mentioned, Bragdon discusses profit versus life, which means that he redefines the scope and the directions of the current leadership models.

The share prices in contemporary economic life are very important. They constantly shift as a result of economic dispositions (acquisitions and sales of stock) and they are registered and discussed all over the world. In terms of the price of shares, time is significant. The price of shares is in principle a specification of a company's economic value at a given time. However, with regard to the criteria which determine the price of shares, people's expectations of the future play a large and significant role. Central people in this context are so-called analysts. The analysts' expectations of the future are important, in some senses perhaps crucial, to the current price of shares. The analysts study the corporations and the surroundings in which they operate, i.e. competitive and technological scenarios, etc. In this context they generate certain expectations of the future, and then the media communicate these assessments with great enthusiasm and respect. Interesting questions focus on the frameworks of reference, the models, the bases of the

data and the information on which these analysts (often young men entitled senior analysts) draw conclusions, including the question of by whom and to what extent the models and frameworks in question have been constructed and perhaps manipulated. These are just some aspects of very complex local and global processes relating to the construction and development of share prices. The questions are, however, significant, since share prices are crucial to the entire economic development in most countries. In this sense the prices of shares are an example of a future phenomenon that incorporates time, benchmarking, and meaning, which has great practical economic and political significance and which may be founded on such a fragile and manipulable basis that alternatives could or should be considered.

Since our brain and nervous system constantly download the past to the present (top-down) in order to, so to speak, predict the future, it takes conscientious work to catch a glimpse of the contours of the present as it is. Hence we need to take our point of departure in the present. The point is to see reality more or less as it is, to register the issues concerned phenomenologically as they appear to us – all kinds of perceptions and sensory experiences, feelings, memories, dreams, fantasies, etc. For this reason the development and the recall of the past, the experiences, and the biography are important. The point is to become capable of explicating emotions, which is in fact an actual project involving screening, analysis, and creative work. When you in this way create an essence of past resources, you liberate emotional energy that translates to dreams, nostalgia, hopes and wishes by which you can build the future. The core faculty in the ability to create the future is to be able to wish, and wishes are fuelled by feelings and values.

Future visions and objectives, and the creative force, are thus increased when the feelings are updated in the process

of constructing the value frameworks of the future. In a corporate context, this presupposes an awareness of and a language of feelings, and moreover a translation of these to actual measurements, decisions, and behavior.

The Meaning of (Working) Life – Individual and Organizational Perspectives

When a human being or a corporation wishes to get a more profound understanding of life processes, and share responsibility for the future, it is necessary to generate an overview of the situation. In the following we shall focus on how to get such an overview through some systematic individual exercises and work routines. Applying yourself to find the meaning of life redresses the structure of the self and brings it up to date. This also applies to the creation of a structure in a corporation, when it realizes why it exists and which tasks it should undertake. Where are we going and why? For the individual human being as well as the corporation, the focus is on what we in many cases choose to call the core output. Towards the end of the chapter we shall discuss how you can apply these questions in a corporate context. The essence of this question is in short that the individual human being should:

- See the current reality as clearly as possible, know where you are in life; know your priorities and understand precisely how you spend your time and energy. The point is to create an overview of what you could call your expanded present.

- Know where you come from, become conscious of your life story and the experiences that were crucial in your development into the person you are today. The past

should be clarified in the autobiographical history and its inherent positive and negative aspects.

- Know where you are going, what moves you, and what your driving force is in your professional as well as your private life. What is the meaning of life to you? The focus is to visualize a desired future as clearly as possible in terms of contents.

- Link the resources of the past (values and experiences) and the intentions of the future (objectives and meaning) in an explicitly selected and organized present.

The essence in most people's lives consists of experiences, which in one way or the other relate to quotidian work and education – and also to the activities focusing on sustaining, maintaining, and taking care of ourselves at home as well as in our spare time. Our lives unfold within this framework – and here we can choose to use the previously mentioned space to maneuver in order to make a difference to ourselves and our fellow human beings – for instance in terms of not accepting being pushed about at random throughout life and instead try to get the sum of our days on earth to resemble a work of art.

(Mihaly Csikszentmihalyi, 2005)

A day-to-day life in the present controlled by the past, is the equivalent of a daily downloading of the same control system. The habits and the routines are repeated repetitively. Reflecting yourself in these basic conditions and in the meaning of life would interrupt the downloading and the habitual approach to life. If on the other hand you do not do it, then the past plays a significant role with regard to determining the future. Or in other words, the past almost becomes the future.

The Basic Conditions of Existence

The basic conditions of the human predicament can be used as a lens. In order to break up the routine experiences and the habits of the quotidian, you could for instance look at the fact that we are mortal and do not know when death will occur. You could also look at the inherent meaninglessness which characterizes life until you commit to what makes sense. Alternatively you could focus on the aloneness you might feel, when you are primarily introspective or on the ultimate freedom, which is also about taking full responsibility for whom you are. A profound look at your life and the basis of your existence can become a lens to focus on defining and intensifying issues that are more important to you than others.

We work on perspectives related to present-past-future as a specific tool to clarify and set objectives in a personal action plan. We develop the ability to:

1) Look at the resources of the past.

2) The images of the future.

3) In order to unite them in the will of the present.
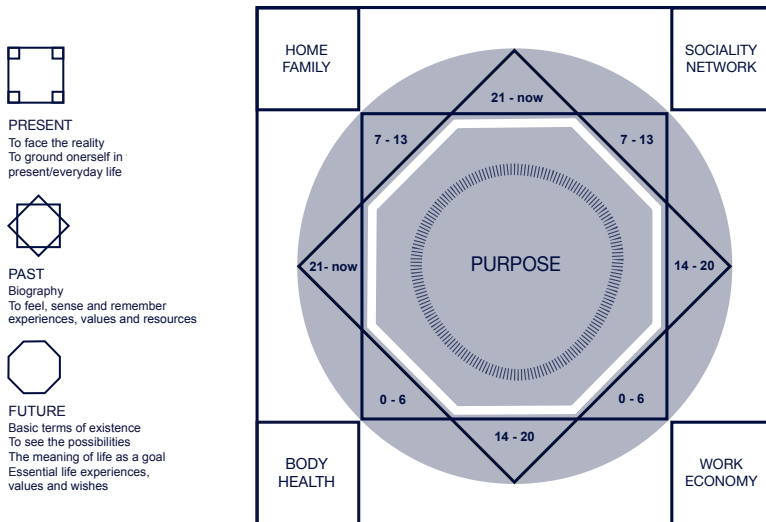
Figure 24: The Personal Life Chart

The Present – Main Grounding Points:

Body/Health, Home/Family, Socializing/Network, Work/Economy

We take our point of departure in the present reality, seeing what reality really *is*. A central issue is the grounding of reality through explicit descriptions of how you spend your time, descriptions of *the body, the home, social spaces and relations* and *work and economy*. To most people these four spaces represent a major part of their daily energy and time consumption.

The present is what happens during a period in life, for instance the years around forty, characterized by teenage children and a mature career experience. In that way we can describe and relate to the present as a kind of expanded tense involving 1-2 years on either side of a given moment or a

concrete date. This means that the expanded present includes the recent past and the near future. We focus on the sphere of life about which we can say that if no significant unpredictable events occur in your life, experience and *the calendar will more or less be able to predict what your life looks like* in 1-2 years.
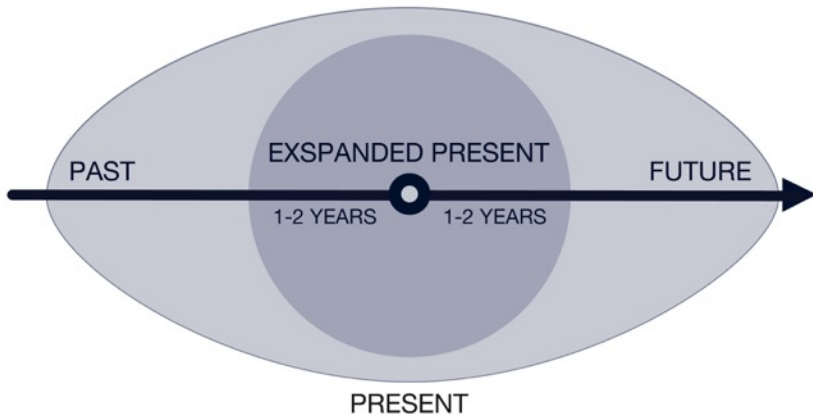
Figure 25: The expanded present

On this basis we have selected some basic aspects through which you can find your bearings in the present. It can be done in many different ways. We shall apply these simple and well-known fundamental modes:

- Feeling and recognizing your *body and its condition*

- Having a basic experience of what kind of *home and family* or spatial-systemic reality you inhabit

- Preparing the central *social spaces and networks* you are part of

- Preparing the workload and the *economic turnover* in your life

On a practical level you can explore each of the four areas, for instance by taking a piece of paper, drawing a circle, and then spending five minutes writing down minor and major issues, pros and cons that come to mind, when you focus on the individual fundamental forms. This is an individual exercise, but it can be expanded and adjusted to target a group or an organization. Then you choose the two most important pluses and the two most important minuses in each category. In this way you will get an immediate overview of your day-to-day life, and some images of the central energy circuits in your life will occur. Moreover, there will be images of some resources, of all the pluses, of some areas that can be developed, and all the minuses.

The Past – Biography:

0-6 Years, 7-13 Years, 14-20 Years, 21-Now

The past is everything that has happened, everything you can feel and remember, but also all the things you cannot feel and remember. The sum of all the things you have been through. All of this occurs more or less subliminally, i.e. controlled by implicit and habitual processes. The present exercise is designed to create an overview of one's own biography by explicating three phases in childhood and adolescence as well as a cumulative phase that covers adulthood.

We have selected precisely these phases because all the crucial issues in what we call the internal control systems in a human being are generated in the course of the first 18-22 years (the brain is fully developed at the age of 20-23).

One of the more complex aspects of the past is associated with the so-called residual problems or traumas. These

phenomena in the human mind freeze up the internal flow and due to the neurobiology of the trauma, such deadlocks are maintained by the sympaticus. Systematic, analytical, and logical attempts to remember and generate memories take place in the left hemisphere. However, via application of creative processes, for instance music or relaxation (the parasympaticus) combined with in-depth introspection into the past, you can access the depths of the right hemisphere. The right hemisphere administers the implicit memory and the physical memory, and thereby also the early phases in life, before hippocampus and the autobiographical memory were fully developed.

It is interesting and often also relevant to make comparisons between the individual human being and groups of people, for instance corporations. In terms of the so-called residual problems or traumas, it is extremely important to try to understand these phenomena in a corporate context. The reason is that there is every good cause to assume that there are many traumas or residual problems in public and private corporations, which only rarely find focus and pertinent conflict resolution. Traditionally speaking, our research-based knowledge about these phenomena is not very developed, but most people will intuitively recognize many examples of traumas in corporations. In the book *Toxic Emotions at Work*, Peter J. Frost disseminates knowledge about what he calls toxic emotions and insight into traumatizing experiences in corporations, between corporations, and in the private sphere. We imagine that exercises, therapeutic insights and approaches will become ever more widespread in relation to larger groups of people and corporations, which could contribute to the healing of some of the so-called residual problems.

The exercise concerning the past is, in terms of the individual human being, identical to the exercise that

focuses on the present. You take a piece of paper, draw a circle, write major and minor issues, and pros and cons that you remember from each of those four phases (you might spend four to five minutes on every phase) and finally you select the two most important pros and the two most important cons from every phase. These now belong in the model as already described; a pro and a con in each of the two points that belong to each phase.

Aided by screening, analysis, and creative work, you have explicated and liberated emotional experiences from the past, and thereby opened the emotional storehouse that sources dreams, nostalgia, hopes, and wishes. Feelings are the central function in the ability to wish. The more emotional capacity a human being has, the more you can dream and wish, and in this context it is easier to generate a frame of reference for the values you would like to be in focus in the future.

The Future – (Re)discovering the Purpose or the Meaning of Life

When you find your bearings in life (in a long-term perspective), it is necessary to aim at something. You need a goal that can function as a compass or as a roadmap in the comprehensive range of demands, expectations, opportunities, choices, and priorities, which are also part of life. We call this map or compass *the meaning of my life*, i.e. a vision of issues that are more important than others in my life.

The question is how I apply my crucial life experiences to open the creative potential of the future? One answer is as mentioned that one can use the fundamental conditions of existence as a lens. "A basic existential conflict is the tension

between the consciousness of the inevitability of death and the wish to go on existing" (Irvin D. Yalom, 1998).

The crucial basic condition that applies to all of us and which has the greatest significance in the creation of an in-depth perspective on life is *death*. Death is the single basic condition inextricably associated with life. The other three basic conditions are responsibility, aloneness, and meaninglessness.

To be *responsible* for an issue means to be the originator of this matter. To be aware of this responsibility means to be conscious of the fact that you continue to create your own self, and that you through this self, create an attitude to your life situation and destiny. We are responsible for our lives and also responsible for what we refrain from doing.

We walk into life alone and we must leave it alone. Facing this *aloneness* and potential loneliness can enable us to generate a profound and giving relationship to "the other". However, no relationship can end the isolation and the aloneness. We are all alone in life, but we can share contact. Attachment – separation (merging versus isolation) is one of the great developmental challenges of existence.

Meaning is not something you should find – not something you are given. The experience of decoding the meaning gives you a feeling of mastery. The experience of meaning assuages the existential anxiety, and the feeling of meaning generates values and self-assurance. Obligation and commitment are the answers to *meaninglessness*. Wholehearted commitment increases the opportunity to assemble the crucial events in life to a meaningful pattern.

The point is to find some existentially valuable statements or experiences:

1) If you were to die in, for instance, three months and you evaluated your life on the basis of such a scenario, which two or three experiences or qualities would then be the most important in your life?

2) Choose one or two situations in which you have received profound care and nurture.

3) Choose one or two situations in which you have given nurture.

4) If the meaning of life was a sentence, what would it sound like?

5) Try to remember and see if you can recall situations in which you have received something unexpected or free.

6) Can you mention any meaningful activity that you have participated in?

Again you can use a practical approach by drawing a circle on a piece of paper and writing down all the existentially significant statements (using for instance cue words). Then you use 5 to 10 minutes to sense and listen to everything in the circle, while you imagine that if this were a unity, an expression, or an image, what would it contain, what would the holistic entity that is more than the sum of its parts be? In this process we evidently use systematic, rational analysis and supplement with creative and visual expressions. The point is to connect the left and the right hemispheres and to feel the sympaticus as well as the parasympaticus. We focus on the creation of a visionary image of the meaning of the future. On concrete levels you can use various magazines (preferably colorful, for instance *National Geographic*, holiday

catalogues, etc.) as your starting point in the search for colors, images, symbols, etc. which you tear out in smaller pieces in order to paste them together in a holistic image – the vision of the meaning of life.

In the process of coming to grips with the meaning of life through a systematic and creative focus, integrative aspects of the brain and the mind are activated. As demonstrated, the exercises in question address the personal individual spheres. We have practiced these exercises for many years, and it is obvious that if they are carried out with a genuine commitment, then they facilitate profound contact between the people involved and the question of the meaning of the individual person's life. On the basis of feeling, formulating, and unfolding what the meaning of life is, the individual leader or co-worker can move on in his or her organizational context and continue to define and unfold the meaning of the corporation in question, and on this basis try to reformulate leadership values and principles.

As indicated above, this means that you can continue applying the main model in an organizational context reflecting the biography and the leadership of the organization.

The Biographical Map of the Organization or the Corporation
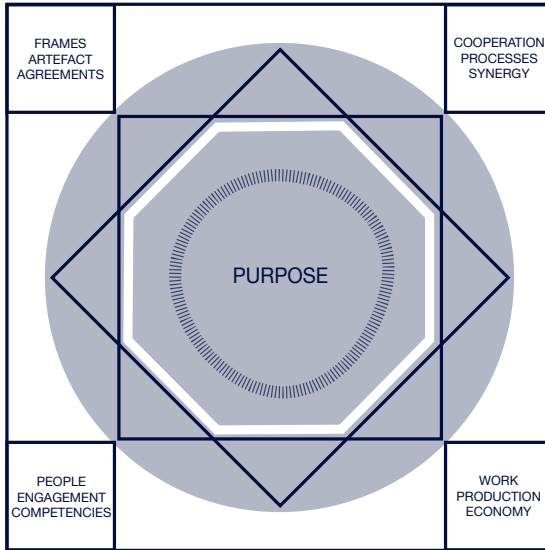
Figure 26: The map of the life of the organization

A corporation's biography is a description of its birth, past, and present, as well as the events and the processes that led the company to its present shape and condition. The biography can be the starting point for the development of the corporation on the basis of its past and its history. The method applied is sometimes called the corporate biographical method. According to the *Børsens Management Leksikon* the four main aspects of the method are:

The present and the past:

1) Observing the company's past and future in the various phases of its existence.

2) Finding connections, patterns, and underlying themes in the company's existence.

The future:

3) Developing the company's desired and realistic image (vision) of the future.

4) Selecting and making the necessary decisions, which ensure the implementation of the desired future.

In the present formulation, the biographical method provides an overview of the corporation's past, present, and future and it can be applied as a general model for strategic leadership. However, the model does not specify how you − often the company's senior leadership − apply the four main elements. How do you, for instance, view the future? What type of events and decisions do you observe and include, and which ones do you exclude or simply not see? We are not going to continue this catalogue, but refer to the fact that on the basis of the model in Figure 26, the corporation's biographical map, you can in principle work on the corporation's biography and situation in the same way as you do with the past, the present, and the future of the individual. You can follow the directions in the model, and also combine the approach with the individual elements of the corporate biographical method, for instance in the case of the company's vision.

The question we wish to ask focuses on the level of consciousness you want to apply when developing the future and which feelings should constitute the basis of this development. We mentioned that feelings are the core factor in the ability to wish for something. Which feelings become the basis of the corporation's future vision and mission? What is the meaning of the corporation's life? Who develops this meaning and how – and how do you apply the meaning to crystallize the intentions and the wishes, which in the final analysis will form the basis of decisions, initiatives, and actions in the corporation?

If we look at the so-called mission-vision processes in corporations, it is our view that many such processes represent extremely simple prolongations or projections of the company's past into what we call the future. However, in the best case scenario the future will only become more of the past, i.e. growth in key figures and values, on the basis of which we typically measure the success of the corporations. The innovative encounter with the future, described, for instance, by Otto Scharmer in the context of the Theory U, consists of a creative attentive presence, a new level of consciousness or other sources which you do not access in the mechanical extension of the past into the future. If you try alternative approaches to the development of the future, for instance inspired by the thoughts and exercises mentioned above in connection with the individual development, the potential will be in the creative encounter with the future.

In a simplified way you could say that every human being, every corporation, and every society has two identities. One is the historical identity. It consists of a number of events and decisions which have shaped you the way you are, or shaped the corporation or the society you observe and describe. You can map and describe the individual's and the

corporation's biographies, and this activity is in itself interesting as well as significant. You can hardly attend to your own life or take on responsibility or co-responsibility for the development of a corporation's leadership and development, unless you know and respect your own or the corporation's biography. We are all familiar with this scenario, but we can progress towards further understanding of the variations of the biographical images. Moreover, every individual and every corporation has another identity, i.e. an opportunity, a future potential which represents this individual's or this corporation's highest future aspiration. In the same way that we draw the biography, we can describe and characterize the highest future potential through images, moods, characteristics, etc. and on this basis relate to, develop, and actually initiate a realization of the highest future potential. We can do that as individuals in our own lives, we can do it as leaders and co-workers in corporations, and we can do it as a society. In all three areas we not only have great, but crucial preconditions and opportunities to make radical changes. And what is more, there is a need for great changes on all levels, if some of the negative, perhaps catastrophic developmental features that characterize the world today, must be developed into new approaches.

A sustainable leadership, an innovative management, which for instance Gary Hamel discusses in *The Future of Management*, will not materialize if we just prolong the past, stick to the old mind-sets, and listen to the same feelings that inspired us, when we developed the present industrial, management, and organizational models. "Everything has changed except the way we think", Albert Einstein said. A sustainable leadership presupposes that individuals, corporations as a whole and groups of people work in innovative ways with the sources and the values that generate decisions and strategies.

The Psychology of Will and Decision. Attention and Applied Sustainable Choices

> *The more psychic energy we invest in the future of life, the more we become a part of it.*
>
> (Mihaly Csikszentmihalyi, 2005)

The-meaning-of-life objective constitutes a framework that opens up new opportunities to create structured and creative processes involving subsidiary goals. As mentioned, sustainable living systems function in an organic interchange between intentional and relaxed-go-with-the-flow processes. One of the secrets of the continual changes in the life processes becomes evident when the implicit self-organizing habits and the explicit new orientations relate to the same meta-objective, when habits and willful decisions point to the same direction.

In order to change, you first have to take a profound responsibility for yourself. You must commit to taking action and to applying your will to create results. Making decisions is a lonely project. Nobody can make your decisions for you. Some people have problems making decisions, and yet you cannot not make decisions! To the extent that we "create ourselves" and our lives, it follows that our many minor (or major) decisions are the atomic particles of the being we create. To fully acknowledge that you constantly make decisions, selections and de-selections, is to project an authentic and existentially attentive presence in your life. All elements in the decision process are carried out via the willful attention. In Hannah Arendt's words, "the will is the

function in the mind that generates the future in the same way that memory generates the past". The will is associated with humanity's basic energy – the life force itself. We are born with the will to live, to survive, to adjust, and to procreate.

The will incorporates intention, direction, and concentration. The will was originally expressed in the context of need for food, contact, and security. These needs are conveyed by implicit sensory circuits. Eye contact, body language, gesticulation, and feelings are some of the communicative pathways. The will and its inherent force constitute a determining factor in terms of realizing your own strengths and resources. This factor generates decision capacity and vitality.

The Development of the Will

Like many other aspects, the will is generated in childhood. In the child's early development, the will is shaped while interacting with instinctive impulses. The formation of the will is completely dependent on the child's attachment and environment. When there is a secure and relaxed resonance space (affective matching) in relation to the primary care givers, the child experiences that it is met and accepted. The young child expresses needs, instincts, and extrovert will. It is welcomed and contacted by a body, feelings, and thoughts that thrive in the relation. The feelings are the main source of communication, which involves body and thoughts. In this way instincts, will, and emotions are linked.

When the instinctual impulses and the fluctuating emotions meet repeatedly in this way, the child learns that he is OK, that he is allowed to be here. This process will in the course of the first couple of years form the basic elements of the child's internal representational system – the self and the

mind. In the 1920s the Swiss psychologist Otto Rank described three aspects of the development of the will:

1) *Reluctance*, i.e. a will emanating into the world and encountering another will

2) *Positive will*, i.e. willing what you have to do

3) *Creative will*, i.e. willing what you want.

Unwillingness, the externalized will, can, as mentioned, be met with attentive presence and affective matching. In situations where there is a lack of care, the child will conversely experience an insecure attachment, where the adults are not in touch, not present. Then the child will react by closure, not feeling met, not feeling that it is OK as it is. This results in early damage, which makes the child more susceptible to stress, and the emotional life is suppressed, the will is not allowed to develop, and feelings of guilt ensue. In addition there are all the reactions in the intermediate fields.

In the phase of the positive will the child must learn to postpone needs, to do what is necessary. The child is now on its way into the so-called assertive age or the defiant age. If this phase is also met with kind latitude and clearly defined limits, the child's sense of self will be reinforced. The child will learn to contain more energy and understand that occasionally you must do things which you may not feel like doing. This will provide the best conditions for the creative will. The will and the access to its organizing force are thus on many levels a question of the ability to sense emotions, to fantasize, to feel nostalgia, to dream, and to hope. The capacity to wish is based on these abilities.

In a perhaps more contemporary version the various types of will could look as follows: 1) the basic will, 2) the self-will,

3) the creative will, 4) the will to surrender. The will to surrender is characterized by active additional choices, which, for instance, consist in sharing the responsibility for the totality or in synergetic processes, where the greater good overrides the self-will.

Willful Attention and "the Smallest Possible Change"

The willful attention has three basic versions:

1) a neutral registering form, 2) an active organizing form and 3) a relaxed self-organizing form.

The so-called *smallest possible change* (SMP) is the smallest building block of the willful attention. Performed and repeated, it will result in the confident knowledge that you are capable of making decisions and changes that reinforce the will system. The implementation of the smallest possible change is a tool applied to avoid disturbing the amygdala. As a species we organize our lives around habits and predictability, and basically we do not like changes. Changes weaken the predictability and the opportunities for control. The smallest possible change is so small that it has no significance, if it is only performed once. On the other hand it becomes very powerful if and when it is repeated. Small changes in complex systems can generate great changes.
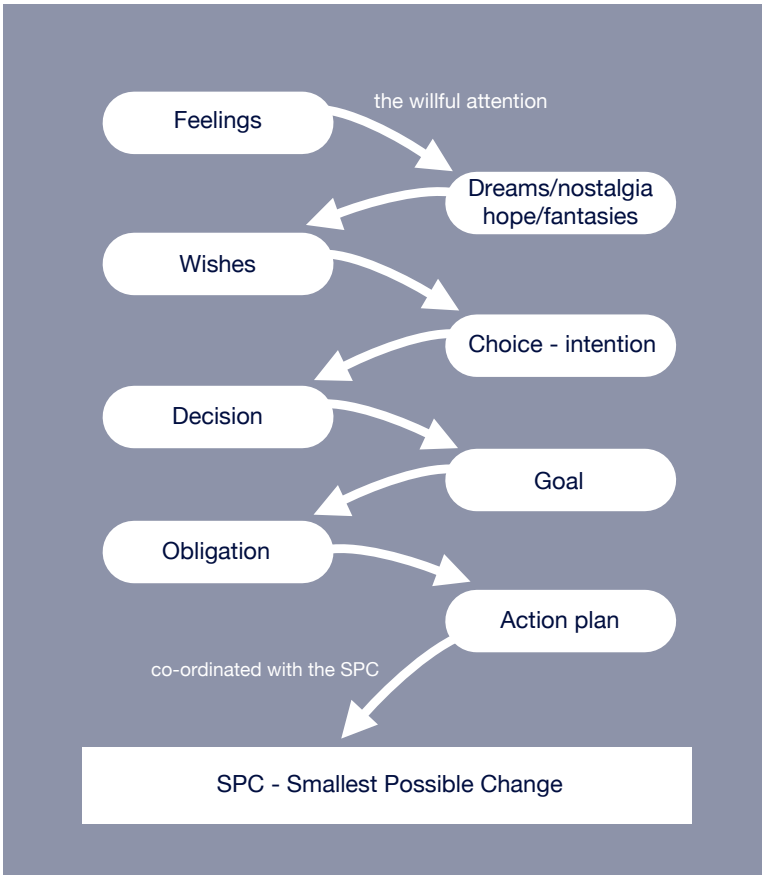
Figure 27: The steps involving processes of the will and decision making

Intentions focus psychic energy in the short run, whereas goals tend to be more long-term, and eventually, it is the goals that we pursue that will shape and determine the kind of self that we are to become.

(Mihaly Csikszentmihalyi, 2005)

In the development of an actual plan of action we take our point of departure from the model in Figure 28.
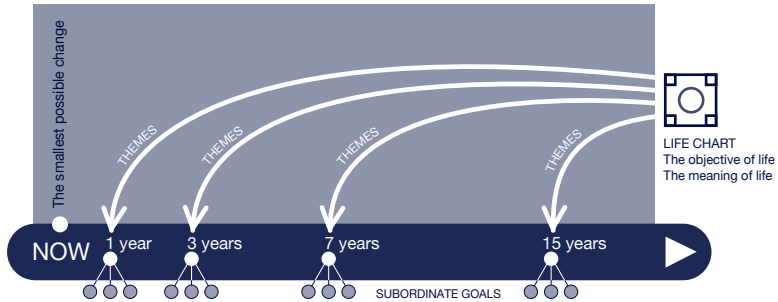
Figure 28: The meaning of life – transformed to "the present"

The point of departure of the model above is the personal life chart, as explicated on pp. 162-166, and the model in Figure 24. The life chart and the attending objective are clearly represented to the extreme right in Figure 24. This is the sighting point on the time horizon, by which you plot the future course. This 15-year-objective is in fact based on the creative process of "the meaning of life." When it is clarified the point is to decide what should be happening in seven years. And if this should be happening in seven years, what should then be happening in three years? And if that should be realistic in three years, what should I be doing now?

From this visualization you select central themes, which are then subjected to still more intense planning the closer we get to the present.

Going ahead with this project right here and now, we encounter two processes:

1) Three, four or five goal areas pertaining to the next year, which link up with the previously mentioned themes.

2) The smallest possible change exercise – quite small, concrete decisions on training. They must be so concrete that you know when you have carried them out. The operative issue in the smallest possible change is the fact that it is linked to a theme, which is linked to the-meaning-of-life vision, so every time you make such a tiny "smallest possible change" exercise, you contribute to the realization of the vision.

> *The focus on the willful attention generates a link in the present between the experiences of the past and the intentions of the future.*
>
> (M. Csikszentmihalyi, 2005)

Which themes are part of your "meaning of life" objective?

If you should make a "smallest possible change" agreement with yourself, what would it be?

> *When goals are clear, feedback relevant, and challenges and skills are in balance, attention becomes ordered and fully invested.*
>
> (M. Csikszentmihalyi, 2005)

Knowledge about Knowing Obliges

The final chapter is an exposition and a summary of the perspectives of the central themes in order to provide closure and round off the book. A number of concepts and models have been presented and their cumulative effect provides the reader with a set of concepts designed to understand the situation of human beings and corporations. We have a lot of knowledge about humanity, corporations, and societies. The challenge is to apply more of the knowledge we already have in order to create long-term leadership in a world, which in many ways is controlled and governed on the basis of short-term principles and goals. In the following we shall discuss the theme: knowledge obliges.

Do we want to protect the way we did things in the past or will we join one another in creating a different future?

(Peter Senge, 2008)

In recent years leadership has become ever more important and accepted as a professional domain, especially since the growing realization that a solution to the world's problems requires increased leadership efforts, locally as well as globally.

Regardless of our views on the 2009 climate conference in Copenhagen, the COP15, it was an exercise in global leadership. In terms of leadership and organization we possess quite a lot of knowledge, and in this book we contend that on a world basis – not just in the context of leadership, but in general – we have much more knowledge than we are capable of applying within the present societal and scientific structures. As mentioned, the world is, during the present decades, challenged by some enormous and in many ways imperative demands for global change. The immediate requirements for us and the planet are to handle these needs for sustainable behavior and development, not only in terms of the external world, but also in the context of the individual person's inner world and life. This is one aspect, which in itself requires immediate action. This is juxtaposed with another aspect, i.e. attending the major positive opportunities – in practice also the many current crises and paradigm shifts – challenging the globe and humanity. This would, however, require that the planet's political leaders, scientists, unions, leaders in the field of education, etc. agree on how to interpret the present serious crisis and act adequately on the basis of this agreement. However, in this context we should remind ourselves that the relevant time horizon for the understanding of all these positive potentials is not ten years, even if ten years can bring great changes and improvements, but rather several decades, perhaps a hundred years or more. Conversely, it is our conviction that the relevant time frames for some of the immediate and serious crisis phenomena in the world are not 100 years, but ten years or very few decades.

In the past 10 to15 years a number of the world's leading scientists and practicians in the field of cognitive psychology, leadership, and neurophenomenology (Rosch, Varela, Senge, Scharmer, etc.) have formulated what you could call the blind spot of western civilization. The focus is

on ever-interesting and valid questions like: In what location and source do humanity's decisions and actions originate? What function deep inside or outside us shapes the intentions, which later become our actions? What do we know about the sources of our actions, decisions, and initiatives? Take for instance a painter. In the first instance we can observe the finished result, the object, the image, the painting. Secondly we can also observe the artist while she paints the picture, i.e. observe the actual process in which the artist uses colors and brushstrokes to create the painting. Thirdly, we can observe the artist when she is positioned in front of the white canvas or paper. In his book *Theory U*, C. Otto Scharmer uses this example. He talks about the blind spot, which is the driving force of the artist's creativity – and the leader's leadership activities. What prompts the artist to draw the first line? Where does the first brushstroke come from? It is interesting to ask yourself questions like: Where does leadership come from?

The problem is not a lack of knowledge about the functions of the brain or the biology controlling our lives. The problem is that we do not know enough about how to get experience and arrive at cognition… the main question is: How does consciousness arise… can this crucial process (of being consciously attentive) be learnt as a skill?

(Francisco Varela in Theory U)

The deliberations about this blind spot can be expressed in themes distributed on various levels. However, the fact remains that every single individual acts on the basis of cumulative life experiences.

One of the tools of the internal human processes, which is increasingly in focus in current leadership development, is

the type of meditation called mindfulness. This is a 2500 year-old Buddhist system of exercises. In the East it is called the vipassana, and its main tool is to be aware of or witness the breath. Mindfulness holds an important position in that it helps us develop a neutral approach to the experience of reality, including internal reality in particular. In practice the focus is on the upgrading of the ability to implement sustainability, i.e. to find your bearings internally and in external situations.

Whether or not a human being should be involved in a spiritual practice, which is historically linked to a religious or spiritual structure, is a personal issue. In our view there should be an increased focus on the slide that presently occurs in these areas in the context of spiritual and personal development. We both have experienced of internal spiritual and meditative practices enhancing our perspectives and enriching our lives. We have practiced such internal exercises, and to us the concept of spirituality represents the fact that we are linked into still greater correlations and that we share responsibility for such links. It is important to use the entire sum of scientific and existential collective intelligence in order to contribute to the solution of the shared problems which we face – and which we in many cases have created together.

In this book we take responsibility for our professional approach by for instance formulating and profiling an internal feedback concept, the so-called gear shift, which refers to the explication of internal processes and transitions. We apply this concept in order to establish a clear delimitation in terms of the methods and the tools which we have gleaned from classical religious and spiritual traditions. The good news is that we have access to the resources necessary for this responsibility to grow and develop. In a global perspective we have enough collective

knowledge, but it is not coordinated and positioned in an overall context, a shared meta-cultural and meta-religious framework – a modern parallel to the holistic world pictures of earlier paradigms. Such a structure could for instance look as follows:

Given the scientific knowledge bank we presently have access to; we know that we live in an infinitely expanding universe created more than 13 billion years ago. Moreover, we live on a globe which synthesized out of stardust 4,5 billion years ago and took the shape of one of the planets orbiting the sun. Planet earth is our physical origin and we share this background. We are literally linked to all life on the globe. This statement and the attending personal experience of being a part of a greater circuit, in which each of us belongs, generates shared responsibility for the totality and the life which unfolds within this framework. These issues constitute what we in this book perceive as a spiritual perspective.

A leader can be a cocksure tourist, a visual scavenger, who habitually insists that the future must be formed on the basis of the values and the concepts of the past – i.e. we should continue to do what we have always done. A visual scavenger is a person, who does not see clearly and whose vision is inhibited by a number of blocks, myths, feelings, and prejudices; a person who randomly gathers more or less arbitrary impressions and information; a person who on the basis of these fragmented impressions makes statements and voices opinions about a great many things, and uses this insufficient background knowledge to make important decisions. In short a person of limited vision and whose decisions are hence based on an incomplete and distorted foundation.

 In contrast we would like to visualize a leader who has a more developed range of vision. She could be an insightful

pilgrim, who negotiates the future with curiosity, humility, creativity, and innovation. Such a person could be more conscious of her prejudices and feelings, more aware of her limitations, and consciously undergo a development to become a more balanced and serene individual. She would simultaneously be confident and humble, a person whose decisions are based on a more complex foundation, a person with more latitude. We could also focus on unconscious versus conscious behavior and decisions. The difference between the unclear and the refined outlook, between the unconscious and the conscious behavior, will always have consequences – for the individual and her surroundings. "Unfortunately, philosophical and ideological individualistic positions, especially those dominant in our Western culture, have made us blind to the fundamentally intersubjective nature of our own brains". (Iacoboni, 2008).

 The quotation in the heading of this chapter, "Knowledge about Knowing Obliges" is lifted from *The Tree of Life* by Maturana and Varela (1987). The authors continue: "It compels us to realize that the world everyone sees is not *the* world but *a* world which we bring forth with others. It compels us to see that the world will be different only if we live differently. It compels us because, when we know that we know, we cannot deny (to ourselves or to others) that we know".

There are indications that we live in a decisive period of time in the recent history of the globe. As evidenced and, like a growing number of people, we are concerned by the accumulation of the signs of crisis: the climate crisis, the financial crisis, the population explosion, water shortage, pollution, inequality, poverty, aids, starvation, stress, diseases resulting from our lifestyle, meaninglessness, war, terror – the list could go on. This is the extremely painful aspect. The positive side of the coin is that incredible progress has been made in a large number of areas: medical science,

and the sciences in general, but also within the social, psychological, and pedagogical areas, etc. do we continually witness quantum leaps. We have much knowledge about human beings, about families, and groups of people, about corporations, and society, about nature and the globe, about stars, galaxies and much else. However, our collective ability to transform this knowledge to global good deeds and initiatives is much in arrears.

In one of Al Gore's addresses on the global climate crisis he makes the following statement: "*What's needed really is a higher level of consciousness — and it's hard to create, but it's coming. As the Africans say: ´if you want to go quickly, go alone; if you want to go far, go together´. We have to go far, quickly*". We are forced to find new ways, not individually, not each to his own, not independently and egotistically. We have to find solutions *together*, on the basis of the realization that we cohere and hence naturally all depend profoundly on each other.

However, what seems right and necessary to a so-called highly educated person from Western Europe, might not elicit the same response from a poor young African or a rice peasant in China. What we do know is that we in the West in the recent century, and still to this day, consume around 80 percent of all the available resources on the globe, and that we constitute 15 percent of the planet's population. Not only do we develop, practice, and hang on to this enormous distortion, we also overexploit nature and live anything but sustainable lives. Hence it is our responsibility to be the vanguard in the process of generating and implementing global change. As individuals and society we have reached the end of the line, and we must act now. There is only one place to start: with ourselves. We must act as human individuals, consumers, constituents, fellow human creatures, and family, and as corporations, organizations, societies, and countries, but first and foremost as individuals – back to square one.

It is a Small World

One lesson, which on a mental level almost seems to be understood globally, is the mutual dependency that characterizes the world – the realization that everything is connected. We could talk about a world of dependence, about mind-sets based on dependence, and about dependence as a forte. To a great extent we need to understand this issue, also in terms of taking action, but an important beginning has been made. The globalization of recent years has contributed significantly to the new understanding. A mind-set based on independence was the trademark of the industrial society, where everyone was – and ought to be – isolated in a private circle. Hence, not just nations and continents, but also individual corporations went to war. Mind-sets based on war ethics, unilateral thought processes, and a language of conquest are among the distinguishing characteristics of the industrial age. Yet the competition phenomenon and the market economy could and should hardly be abolished. These phenomena seem to encompass answers and opportunities, which it is otherwise difficult to find or develop. The word competition originates from the Latin *competere*, which means to make an effort or to strive together. Moreover, you could easily imagine a regulated, tamed, wiser and much less self-destructive design of the world's markets and institutions, than we know today. Let us so far just call it a naïve perspective and design, but in actual fact it should not be difficult to imagine, and much less practice, when you consider the residual costs involved in the present kind of competition, freedom, and market economy. The dependence mind-set characterizes the sustainable society, which moreover could be developed within the framework of a projected transformed capitalism – a civilized capitalism.

The We-mind-set

An interesting new book about the we-mind-set, *We Think*, actually speaks about a new world order, generated by among other sources, the enormous opportunities on the Internet. "These years, we sense that every decade is characterized by an unheard of social creativity", says the author Charles Leadbeater. David C. Korten refers to research that states that the USA today counts more than 50 million so-called *cultural creatives*, and in the EU there are approximately 90 million so-called creative individuals *embracing a new culture that values social inclusion, environmental stewardship, and spiritual practice.* This is interesting, and if you add these 140 million individuals to the many other millions in other parts of the world who share the same fundamental makeup, then we could justify an optimism of considerable dimensions. Peter Senge (2008) describes the situation in the following words: "People and organizations around the world are already planting the seeds for new ways of living and working together". Humanity's challenge is, among other things, to utilize all the opportunities on the Internet, opportunities to cooperate in new ways, develop democracy beyond its present stage, further freedom and egalitarianism, and share creative impulses in new ways. In terms of using the knowledge which already exists in the world, then a whole new range of opportunities is represented by the Internet. The World Wide Web opens new prospects for the individual to participate in politics, culture, economy – and leadership. More people than ever will be able to participate, express their opinion, and contribute to the holistic melting pot with their voice, their knowledge, and ideas. The new so-called social media will play an important part in this development.

A World of Sharing and New Ideas

The proliferation of the Internet encourages us to look at the world from a completely new vantage point. The new focus is that what we share is just as important as what we own, that what we co-own is just as important as what we keep to ourselves, that what we choose to give away could possibly be more important than what we are paid to do. In a materialistic economy, you are what you own. In an economy of ideas or sharing you are what you share with others. You are identified with whom you associate with, whom you network with, and with the ideas, images, videos, links or comments you share with others. This is the great contribution of the Internet: it allows ever more people to share ideas with more individuals and in still more ways than ever before. In terms of leadership and organization, this opens up many new perspectives. To an ever greater extent the strength of humanity and corporations is a function of whom they are in contact with about what and in which ways. The focus will be on understanding networks, the construction of networks, and the management of networks. Conversely, powerful networks consist of strong, independent, and self-assured individuals. Human beings and corporations are independent as well as alone, while also existing by virtue of their interactions with other people.

The Network

The network is the practical expression of the dependence mind-set. The network is a small team of people who work together – in a group of leaders, a work related group, a project group, etc. The network can also be a group of corporations, for instance chains of corporations, suppliers, and customers, who work together to establish shared educational and research institutions, groups of public and

private corporations, who cooperate to identify and solve large cultural and political problems. Moreover, the network can consist of groups of nations who work together on political, cultural, economical, scientific, and educational platforms, etc. Networking can also be expressed in human beings' social intelligence subjected to practical tests or implemented in practice. Networks consist of people who understand and practice the basic law of networking: *Give and get*. Peter Senge et al. talk about: "extended organizations based on the primacy of relationship – organizations that work more like forests than machines".

Corporate Responsibility

There is a distinction between on the one hand the voluntary responsibility and on the other the legal responsibility of corporations. In this context we shall not go into details about this issue, but it is evident that still more corporations voluntarily take on social and environmental responsibility. There may be a great many motives for doing so, among others an intense debate in Denmark, in Europe, and in a number of other countries and regions with a focus on corporate and social responsibility (CSR). Above and beyond the international debate, we visualize that we in Denmark, the EU, and the UN – and also in other regional or supranational organizations – in the years to come will legislate in new ways about corporate responsibility. In many countries corporations and their leaders probably have too much latitude with regard to which products, which production processes, materials, and additives, etc. they are allowed to produce, plan, and use. In California there is for instance a law that prohibits artificial transfatty acids in restaurants statewide. You could imagine national and international

legislation along these lines, which significantly would delimit the framework for unsustainable behavior on the part of the corporations. Several years ago a new concept was introduced in Denmark, the Amba, which means a cooperative organization with limited responsibility. We believe that we should have fewer companies with limited responsibility and more companies with more responsibility. In other words, even the concept of the company will in the coming years need to change and be redefined in ways that make it as natural and attractive to think and act in long-term, sustainable ways as it is today to think and act in short-term, unsustainable ways. Many of the necessary changes will come, because the corporations opt for these solutions. Others will come as a result of altered national and international legislation. These two central tendencies should walk hand in hand.

The mere thought that we – in Iron John's words – "have lost our direction but make good headway", is frightening. This implies that we face the fact that something fundamental needs to be changed. It implies a confrontation between old concepts and images, and it entails a clear focus on our previous mind-sets and assumptions on the basis of which we shall open up a new kind of encounter with the future and its challenges. When we look into the future we will hence not see what we expected to see with our old mind-sets, our old concepts and visualizations. This settlement with old values, this self-confrontation will mean that we realize the need and the opportunities to learn from the future in alternative ways.

Limits to Growth

Since the 1970s an outspoken focus on growth has generated a rampant optimism. Then as now growth was an almost natural part of every corporation and every society's

philosophy and ambition. Of course the growth philosophy has on the one hand contributed to the significant expansion, and on the other it already, in those days, gave cause for great concern in many circles. At the time there was also a growing national and global environmental consciousness which among other things resulted in the publication of the Club of Rome report *Limits to Growth* (1972). The central message was that the human pressure on the ecosystems approached the limits to what the planet could sustain. A large number of studies, research projects, prognoses, etc. have since followed. One of them is a 540 page report issued by the United Nations Environment Program entitled *Global Environment Outlook, GEO4,* from 2007. On page 458 you can read the following: "We appear to be living in an era in which the severity of environmental problems is increasing faster than our policy responses. To avoid the threat of catastrophic consequences in the future, we need new policy approaches to change the direction and magnitude of drivers of environmental change and shift environmental policy making to the core of decision making". Catastrophe is a very strong word in such a UN report.

The world is changing in uncountable and significant ways and we are moving into a completely new scenario. In all likelihood, Denmark will play new parts and generate value in other ways than we have done so far. However, we often look to the past – and to what other cultures do – when we search for a pathway into a new and completely different future. In recent years "best practice" has become one of the most widely applied management terms. It originates in a very simple mind-set characterized by competition and a focus on the competitors, in short an approach where everyone is at war with everyone else – countries, corporations, regions, schools, nursing homes, etc. Everyone competes with their peers – and others. Everyone has to perform and generate results, everyone needs to be first and best.

A great number of products and services are offered on major markets by a great variety of corporations, which in this way approach the same potential buyers. This is competition. However, it is not necessarily a clever strategy for the corporations to copy each other, and that is precisely what you do when you benchmark and work with best practice. Best practice is an historical concept which refers to a past concept, which some try to migrate into the future, for instance mind-sets characterized by managerial, economic, logistical or organizational approaches.

It could make sense to do this if the future looks so much like the past that such a comparison and imitation would be relevant. In retrospect such best practice and benchmarking mind-sets have provided many corporations with significant incentives for change. However, often the changes were expressions of the fact that the corporations in question followed in the footsteps of other organizations. A follower will not get ahead. Moreover, is it a wise policy always to be ahead? Why do I have to be ahead in this or that particular field? Not everyone can be ahead, so what is the rationale in being the first or the greatest?

The imitation mind-set becomes particularly problematic if the future we visualize is expected to be radically different from the past in which the best practice in question was developed and established. On the one hand best practice can be an evident and practically possible learning and leadership strategy for a country or an organization. On the other one must beware of the simplification and automatic response concealed in this ultimate retrospective attitude and approach.

We are fond of talking about best practice in the same way that we like to talk about reflection. Best practice and reflection are retrospective and take place in historical space. Best practice represents the best we could muster

under the previous outdated conditions. We register, store, emphasize and recycle best practice. We benchmark, which means that we look at *other people's* best practice. This links up with the design approach, which we described in chapter 4 – the conserving way in which complex systems self-organize by associating with something well-known, which ensures continuity and automatic response. In hindsight the historical perspective could be interesting – also, as previously mentioned, in comparative future-oriented perspectives. Still, we would like to point to another concept, which we call future or next practice – or perhaps best future practice. In this context we introduce the concept *emergence* – the creative listening quality saturated with new, untraditional approaches and methods. The focus is on an open flexible future, on various kinds of potential, on us and on our corporation – more so than on others and their potentially good performance in other circumstances and conditions. Hence we are discussing benchmarking, best practice, *and* best future practice.

In still more areas and in an increasing number of situations we look ahead and construct the new best practice; construct new futures, decide what we want and what we do not want. What should our future best practice be, when we cannot automatically repeat the old? We must listen to the new ideas, feel, think, redefine, sift and search, be creative and innovative. And above all find our own way.

Which values and concepts do we want to recruit and bring to bear on the future? That is perhaps the most important question you can ask yourself and a given corporate management. The task of a corporate leadership is to acquire a profound understanding of the company's record and its general historical context. On this basis the leaders should participate in the formulation and construction of the highest aspirations for the corporation and then

contribute to the realization of these potentials. A corporate leadership looks to the past and the future, but the values and concepts on which you base your retrospection and your gaze into the future are of course determining factors in what you see and construct.

We do not advocate that corporations and countries should lead isolated lives – on the contrary. Networks and alliance mind-sets are central to our concept of the corporation and the world. However, thinking in terms of knowledge sharing, cooperation, networking, exchange, and dependence is the same as perceiving everything from schools, nursing homes, universities, corporations, and societies as participants in a great race, where everything revolves around being the biggest and getting there first. The creative processes of evolution and life have reached this point via an incredible diversity. We must remember that living and complex systems ensure stability – in among other ways via flexibility and difference. We do not think that schools, municipalities, corporations or societies should line up and enter a simple race and allow themselves to be measured and compared with others, whose situation, history, population, leadership traditions, etc. differ radically from theirs. This does not mean that we should not learn from other people, but it does means that we should make conscious choices about the pathways we select. Denmark did not build and expand the Danish folk high schools, democracy, cooperative movements, shipyards, export of farm products, welfare society, universities, a ministry for environmental affairs (a world first), a windmill industry, etc. because we wanted the world's best folk high schools, the world's best cooperative movement, etc. but because – we did it. The reason was that that was what our country wanted at that point in history and that was our situation. It was our folk high school. It was our democracy and welfare society. This kind of independent mind-set, based on self-knowledge and

vision, is a precondition for maintaining fertile relations with other people – whether it concerns others in a similar situation or altogether different communities, institutions and societies with whom we can develop productive exchanges.

Postscript

In April 2010 while putting the finishing touches to this book – in the shadow of an ash cloud from an Icelandic volcano – the American economist, author, and futurologist Jeremy Rifkin made a very relevant and interesting comment in the Danish newspaper *Information* (24-25 April 2010). The heading was "A World in Crisis Needs a Global Leap in Empathy". The article outlines the essence of Rifkin's latest book The Empathic Civilization: *The Race to Global Consciousness in a World in Crisis.*

Rifkin's description of global reality here and now differs from ours, but it is also a comparable way to share a focus on the overall perspective described and presented in this book. We need a global leap in empathy and such a leap is created by human beings.

If we are to understand our present situation, our potential, and what we expect from the future, we need to ask: What would constitute a fundamental change in our civilization? Rifkin discusses the fact that civilizations experience landslides when conjunctions between innovative energy systems and new revolutions in communication technology generate a new economic epoch, like the present. These technological changes – yes, revolutions – occur in tandem with global changes in consciousness, as mentioned several times in our book. Not just the changes in energy and communication technology are important – no matter how significant they are – but also the changes in consciousness. The new types of communication become command and control mechanisms in the structuring, the organization, and the administration of the increasingly complex civilizations which are made possible by the new energy systems. Rifkin describes an image of the future, a distributed energy revolution in which millions and millions of families and

homes will generate, store, and distribute their own energy, i.e. they will have small energy plants which develop and use sustainable energy.

In early modern times the printing press became the medium which organized and administered the technologies, the organizations, and infrastructures generated by the revolutions in coal, steam, and railroads. Administrating the first industrial revolution with handwritten documents and stone tablets would have been impossible, Rifkin says. However, revolutions in communication not only administrate the new and more complex energy systems. In wonderful and subtle ways they also participate in the creation of changes in human consciousness. The hunter-gatherer community only had oral communication and their consciousness was based on mythology. The major farming civilizations were based on hand-written communication and what one could call theological consciousness. The first industrial revolution was controlled by a printing press communication that developed an ideological consciousness. Electronic communication (telegraph and telephone) were the management and communicative tools of the second industrial revolution and the attending psychological awareness and insight throughout the nineteenth century.

The industrial development of the last 200 years has created an unparalleled material welfare and consumption for a small part of the globe's population, whose extent and nature is almost incomprehensible. J. Rifkin says: "The entropy bill of the industrial age will soon have to be paid – with ominous and extensive consequences for the continuation of life and civilization on earth". One could also say that the amount of internal feedback from the living systems and from the universal surroundings speak for themselves. Obviously we are concerned about the industrial development and its consequences. This concern

is one of the driving forces of our book and on this basis we have argued that humanity has no choice. In a number of areas we need to change our ways and among other things develop the global leap in empathy, which in Rifkin's view is what the world urgently needs. We have also argued that such altered perspectives and forms of behavior on individual, corporate and societal levels have enormous positive potentials for the present and future populations of the globe.

Genuine comprehensive changes are founded on sustainable principles, values, and leadership approaches, which further creativity and diversity. Rifkin talks about "true global biosphere economy which requires what he calls a global empathic embrace". We must learn, he says, to see each other as a species, as *homo empaticus.* But that presupposes that we have something to share, that we experience that we are a community.

The point is, among other issues, to rediscover that in profound integrated sustainability everything is interconnected, everything circulates continually. In natural processes there are no waste products and in cultures that live in harmony with natural and organic rhythms, everything is recycled as formulated in *Cradle to Cradle* (2009) by Braungart and McDonough: "*Waste is food*". It is possible (and necessary) to arrange the processes of human life on all levels with a respectful consideration for the limited resources and with a fine sense of the deep organizing principle of living systems, where everything that is used is also composted and recycled.

In all the cultures that have lived in harmony with the basic rhythms of nature, there has been an internal world picture which corresponded to the external, circular, sustainable form of life. Here the individual knew his or her place and role in the context of the community and the totality.

A precondition of the present paradigm shift, which deals with global sustainability, is that each of us understands our role and significance – including that we assume responsibility for our "internal psychological rubbish dump", as Jes Bertelsen says in *An Essay on Freedom* (2010), and discover that internal destructive repression to the body or external projections in the shape of enemy images are "rubbish feedback".

In the foreseeable future a new generation will look at us and ask one of two questions. Either they will ask: What were you thinking? Did you not notice that the ice cap on the North Pole melted right in front of your eyes? Did you not hear the scientists' warnings? Were you completely insane? Did you not care? Or they will ask: how did you get the courage to rise to the occasion and get to grips with a crisis, which so many said was impossible to solve? We must choose which one of these questions we want to answer and we should do it now – not in words, but in actions.

(Al Gore, 2009)

We have a choice – an opportunity to face the reality we share and use it for our common good. Fritjof Capra talks about the fact that systemic understanding of life and life processes can be expanded to the social area by emphasizing the meaning: "A culture is created and sustained by a network (form) of communications (process), in which meaning is generated. The culture's material embodiments (matter) include artefacts and written texts, through which meaning is passed on from generation to generation". *(F. Capra, 2003).*
The global economy is on its knees and the sun is setting on the fossil energies, which have been the motor of the industrial revolution and the infrastructure that grew alongside it for the last 200 years. After many years of CO2

emissions into the atmosphere, we are facing catastrophic climate changes. The entropy bill will be great and unavoidable. At the same time we suffer from a massive loss of confidence in the economic and political institutions which regulate the global economy. In this book we have focused more on this development from the point of view of the consciousness involved in redressing these issues than on the climate and energy aspects, even if the latter is obviously extremely important. We have focused on the individual human being and the significance of the individual's development and shared responsibility, including the view on management and leadership. We also see an enormous need for the individual corporation to assume responsibility – in fact it is a fundamental part of our understanding of the concepts of human being, leadership, and corporation, that people share responsibility as individuals, citizens, consumers, and leaders. It is also important to focus on the confidence in the economic institutions, for instance the banks, as well as in the democratically elected politicians.

Humanity is groping. We are in the midst of comprehensive changes, including a revolution in communication which focuses on the Internet, the modern computer, cell phones, etc. every new communication revolution unites still more people in ever more expansive and varied social networks. We have talked about a modern *we-mind-set*, about ecological intelligence, and about radical transparency. The ever more complex civilizations require increasing role differentiation in the form of specialized competences designed to attend to the still more sophisticated activities in society. But which mechanism could then allow a more differentiated and individualized society to cohere as a holistic totality? That is perhaps the most critical question Rifkin asks and one which we should attempt to get to grips with.

We have addressed a new kind of inefficiency. To a great extent the leadership challenge of the industrial development of the last two hundred years was to eliminate inefficiency and further a narrow efficiency. This project succeeded eminently. Efficiency and productivity have increased dramatically in the industrialized countries. However, in the grey area in which we are now groping, still clearer signs of new kinds of inefficiency emerge. The systems simply do not function appropriately.

The third industrial revolution, which Rifkin calls the development in the twenty-first century, requires new mind-sets, confidence, and courage – and a global leap in empathy. In fact we have a lot of knowledge about this phenomenon. Evolutionary biologists, researchers in neurocognition, psychologists, anthropologists, sociologists, and political scientists have begun to glimpse what Rifkin calls an *invisible hand* in the historical development of human civilization. The question would be how invisible this hand actually is or if this new development should be seen and understood with quite new concepts and approaches? According to Rifkin, a great deal of scientific results indicate that the human brain is imprinted with empathy, i.e. that we on a physiological level have the ability to experience another person's situation or state of mind as if it were our own, cf. our chapters on the brain and the heart. The precondition of this kind of empathy is in practice that you can feel yourself, that you rest peacefully in yourself, and that you have a varied approach to diverse aspects of the self.

In actual fact we have great insight into these phenomena – which are invisible in the scientific sense of the word. One of our greatest challenges is precisely to accept the reality of the so-called invisible phenomena, while we are on the threshold of yet another historical convergence between revolutions in energy and communication systems. Rifkin

formulates this issue as follows: "The Internet revolution coincides with a necessary revolution in sustainable energy that paves the road for a sustainable, post-carbon-economy, which will be globally interconnected and locally controlled".

In the twenty-first century billions of people will transform their buildings to small powerhouses, where sustainable energy so to speak can be harvested *in situ*, stored, and shared across the board of local, regional, national, and continental energy networks, which function like the Internet. The open source sharing of energy will, like open source sharing of information, generate cooperating networks like the cooperative social spaces, which already exist on the Internet. Thanks to Rifkin, the energy and communication dimension is introduced into the considerable development perspective in focus here. The new communication revolution will not just organize distributed sustainable forms of energy. Information and communication technologies are swiftly expanding what Rifkin calls a central nervous system for billions of people, which connects humanity irrespective of time and space. The potentials in these two global energy and communication systems, which characterize the twenty-first century, should be acknowledged in tandem with the global change in consciousness, which will be the basic condition for the enhancement of global empathy. Potentially fantastic perspectives are lined up and their rich quality of life and ideas far surpass the power and reasoning of the negative motives.

The progression towards this leap in global empathy is in process, even if it is difficult to see in the midst of clouds of ash, distrust, angst, and war. The challenge is to generate social confidence on a global level, if humanity is to develop what we, using an umbrella term, call sustainable leadership, and which Rifkin calls a frictionless, integrated, socially just and sustainable planetary economy. Impressive words indeed, but perhaps not so intimidating if we

imagine them in the concrete shape of classrooms filled with curious children, unrestricted by the distrusting mind-sets of the past, children who already upon entering the classrooms are grounded in the social network of the blogosphere. The orientation of their consciousness and communication is global. Rifkin suggests that classrooms should become laboratories for the preparation of a biosphere consciousness for the coming generations. Children should be taught that everything they do, their entire way of life leaves an ecological footprint, which affects the lives of all other creatures and the biosphere which we cohabit. The children understand that we are just as closely connected with each other in the ecosystems of the biosphere, as we are in the social networks of the blogosphere. Hence they transfer their empathic emotions to the biosphere and create social confidence on a global level.

Imagine

Imagine all the people

Living life in peace …

You may say I am a dreamer

But I am not the only one

I hope some day you will join us

And the world will live as one.

– John Lennon

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