

CHAPTER 1

Systems Intelligent Leadership

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This article studies leadership from a systems intelligence perspective. Referring to Lincoln, Martin Luther King and a number of other exemplary leadership cases, we argue that the holistic, contextual and choice-intensive features of systems intelligence make it an illuminating frame of reference for understanding the actual practice of leaders. The key words in the article include “the need to act”, “the living presence”, “the in-between”, “systems intelligent interventions”, “flourishment”, “choice”, “connectivity”, “sharing”, “change”, “microbehaviours”, “sensibilities”, “super-productivity”, “thinking on the fly”, “emergence”, “systems of holding back”, “positivity”, “hope”, “human potential”, and “the symbolic order”. We indicate three critical systems intelligent leadership questions, and conclude with a discussion of the focus points of a systems intelligent leader.

Introduction

The systems intelligence approach is about human intellect in action, in connection of other agents and in environments that change. We introduced the concept in 2004 as “intelligent behaviour in the context of complex systems involving interaction and feedback. A subject acting with Systems Intelligence engages successfully and productively with the holistic feedback mechanisms of her environment. She perceives herself as part of a whole, the influence of the whole upon herself as well as her own influence upon the whole. By observing her own interdependence in the feedback intensive environment, she is able to act intelligently.” (Saarinen and Hämäläinen 2004, p. 3)

Our thesis was that Systems Intelligence is a key competence we possess as human beings – and one that has not been elevated to the status it deserves.

Visual intelligence, logical intelligence, bodily–kinaesthetic or motoric intelligence, verbal intelligence, musical intelligence, intrapersonal and interpersonal intelligence (Gardner),¹ social intelligence,² emotional intelligence (Salovey and Mayer, Goleman)³ – we do possess those as

¹ Howard Gardner (1983) and subsequent works. On visual intelligence, see Hoffman (1998).

² The concept “social intelligence” goes back to 1920s. Its recent revival is particularly due to the unfolding field of social brain studies. For insightful discussions, see Brothers (1997/2001), Stern (2004) and

human beings and probably more still. Yet before anything else, there was already action, there was a context, something was already taking place. And somehow we managed to make it within those systems. Indeed we continue to do so – with our Systems Intelligence.

The aim of the present paper is to apply Systems Intelligence to leadership. The conceptual and pragmatic implications of the Systems Intelligence perspective are particularly striking in this area, we shall suggest.

The Systems Intelligence approach combines holistic orientation with a humanly-tuned emphasis that highlights the human potential. Systems Intelligence follows Systems Thinking in believing in rationalism and reason as the right framework to approach holism.⁴ It extends Systems Thinking in its prevailing modes in several significant ways, we submit. At the same time, the Systems Intelligence perspective also extends the multiple intelligences approach, including Emotional Intelligence and Social Intelligence, to what we believe is the next level of development in the effort to develop a more comprehensive, pragmatically relevant, and realistic perspective for leadership in action.

The Systems Intelligence approach stems from a deep belief in the human potential. In its positive overtones and strive towards flourishing, as opposed to avoiding pitfalls or neutralizing negatives, Systems Intelligence runs parallel to Positive Organizational Scholarship and to Positive Psychology.⁵ It connects deeply with the tradition of humanistic psychology of Maslow, Rogers, and others,⁶ with the study of organizational behaviour⁷ initiated by Roethlisberger and others,⁸ as well as with a Douglas McGregor -style emphasis on “the human side of enterprise”.⁹

Goleman (2006). For a more consultancy-oriented approach, see Albrecht (2006). For some of the implications of social brain research to the study of leadership, see Rock and Schwartz (2006).

³ For a succinct history and a scientifically focused description of the concept of Emotional Intelligence, see Salovey, Mayer, and Caruso (2002). The idiom, originally formulated by Salovey and Mayer in 1990, witnessed a breakthrough with Daniel Goleman’s hugely successful book *Emotional Intelligence* which came out in 1995.

⁴ For excellent overviews of the various facets of Systems Thinking, see Jackson (2000) and Midgley (2000). Flood (1999) is also useful. An enormous amount of key material is collected in the four volumes edited by Midgley (2002). An extensive exposition of systems dynamics is Sterman (2000). For an inspiring introduction of some of the philosophical ideas by an early breakthrough writer, see Churchman (1982). Much of current interest in Systems Thinking is due to Senge (1990; see also Senge et al. 1994). Important philosophical discussions of some of key aspects of Systems Thinking include Bateson (1972/2000, 1979/2002), and Bateson and Bateson (1987/2002). For useful, pragmatically oriented discussions, see Oshry (1995, 1999). For a comprehensive in-depth analysis of some of the key philosophical issues, see Midgley (2000). Midgley’s important work in its emphasis on theoretical and methodological pluralism, in its reach beyond the subject—object dichotomy, and strong emphasis on practice, has strong parallels to our thinking and would deserve a separate discussion. For now, we observe that like Midgley, our Systems Intelligence approach amounts to “advocating engagement in both practice and discourses about practice” (Midgley 2000, p. 272).

⁵ Cameron et al. (2003), Snyder and Lopez (2002), Keys and Haidt (2003). For a succinct program article, see the influential Seligman and Csikszentmihalyi (2000). For an extensive discussion from a research-based perspective, see Lyubomirsky, King, and Diener (2005).

⁶ Particularly relevant here are Maslow (1998) and Rogers (1961/1989, 1980).

⁷ For a comprehensive text on organizational behaviour, see Buchanan and Huczynski (2004).

⁸ Organizational behaviour was recognized at Harvard in 1962 as a result of breakthrough work by Elton Mayo and F.J. Roethlisberger. Roethlisberger’s autobiographical book *The Elusive Phenomena* (published

Systems Intelligence does not wish to define itself as an academic and theoretical approach only but strives to be also a source of empowerment and inspiration for action. It does not wish to remain only a scholarship of action but reaches out to be also a trigger for action – intelligent action within systems and in order to create more intelligent systems for people to use as platforms for further intelligent actions.¹⁰

The Systems Intelligence of Abraham Lincoln

“That Lincoln, after winning the presidency,” Doris Kearns Goodwin writes in her landmark study on Lincoln, “made the unprecedented decision to incorporate his eminent rivals into his political family, the cabinet, was evidence of a profound self-confidence and a first indication of what would prove to others a most unexpected greatness.” (Goodwin 2005, p. XVI)

“His success in dealing with the strong egos of the men in his cabinet suggests that in the hands of a truly great politician the qualities we generally associate with decency and morality – kindness, sensitivity, compassion, honesty, and empathy – can also be impressive political resources.”

This form of greatness is one that should be studied with the keenest of attention, not only for the purpose of Lincoln studies but for the purposes of understanding crucial aspects of leadership, we suggest. It is greatness the features of which relate to other people, patterns of activities that are interconnected and involve the subject himself in situations that are context-sensitive and cognitively non-transparent. Even while lacking clear precedents or codes to rely upon, the subject is able to act constructively and productively within an emerging whole as it unfolds.

What is involved is active intelligence of the highest order involving cultivation and care, insight and intuition, effort and trial, emotional and social intelligence, command of the symbolic order, sensitivities for other people and for the possibilities of the moment as well as for the complexities involved, a sense for the most relevant factors and an ability to integrate conflicting forces, and a fierce resolve towards a desired state of affairs.

Such is the field of Lincoln’s activities in 1860s and such is the field of Systems Intelligence at large, we suggest. It takes the pragmatic intelligence of us humans as its starting point, seeking to highlight what we do right even when we do not know exactly why it is right or know for sure if it will be right – all that in contexts of dramatic, perhaps humanly impenetrable complexity. Systems Intelligence approach, in other words, seeks to connect two distinct intellectual and life-orientational paradigms: the tradition of rationally controlling, engineering and commanding complex structures, and the tradition of sensing, experiencing and sharing the subtleties of one’s environment through human connectivity and the subjective dimension.

posthumously in 1977) is stunning and touching in its description of the struggle for the emergence of the new subject matter. “For many years the question I found most embarrassing to answer was, ‘Tell me, Professor R., what are you teaching at the Harvard Business School?’” “I had become a professor without ever being able to state clearly what it was I was professing. A professor without subject matter seemed a contradiction in terms, and yet, by golly, I had become [one].” (Roethlisberger 1977, p. 1)

⁹ McGregor’s (1960) emphasis on leadership as a relationship is very much in line with our overall approach. “The relationship between the leader and the situation is essentially circular.” (p. 183). For a recent discussion of McGregor, see Heil et al. (2000).

¹⁰ We take the concept of “Systems Intelligence” as “iconic” in the sense that its appearance points the user to move mentally to the right direction even in the absence of expert knowledge on the subject being named. We consider the highly intuitive nature of the concept to be a valuable asset.

Systems Intelligence is intelligent action in real time and within complex, interconnected, and changing structures, in contexts and environments, where human agents tune to, react to and influence one another in those subtle and sometimes-not-so-subtle ways that are unique to us as human beings.

The novelty of the approach is in that it highlights environments and contexts as systems that are emerging, i.e. as complex wholes which have an internal structure that generate outcomes, and yet are subject to change and reinterpretation themselves. The Systems Intelligence approach opens the door for finely-tuned and subjectivity-intense ways of relating to environments, contexts, and horizons of action in real time. Without dismissing the rational dimension, emotions, intuitions, and instinctual forms of awareness and connectivity are acknowledged as key elements of the focus of study.

Systems Intelligence is thus a distinctly humanly tuned effort. It acknowledges the power of our explanatory and rational competencies, but at the same time celebrates our non-cognitive-but-core-human dimensions which typically are dismissed as vague or insignificant in more narrowly oriented rationalistic approaches.

Lincoln's success, Goodwin emphasizes, "is a story of political genius revealed through his extraordinary array of personal qualities that enabled him to form friendships with men who had previously opposed him; to repair injured feelings that, left untended, might have escalated into permanent hostility; to assume responsibility for the failures of subordinates; to share credit with ease; and to learn from mistakes." (Goodwin 2005, p. xvii)

It is this kind of human parameters that the Systems Intelligence approach wants to highlight from a systems perspective, and to bring to leadership focus. A paradigmatic point of interest for us is therefore an observation such as: "Time and again, he [Lincoln] was the one who dispelled his colleagues' anxiety and sustained their spirits with his gift for storytelling and his life-affirming sense of humor."

The focus is upon the human, the *fundamentally human* dimensions in Lincoln the leader. As opposed to a narrowly focused rationalism, Systems Intelligence approach wants to develop a broadly-based account of what an active intelligence essentially amounts to.

Tuning Up the Senses

Intellectual work is based on categories. But categories can be misleading. An underlying idea of Systems Intelligence is to seek out perspectives beyond dualisms such as

- Generic vs. Specific
- Rational vs. Emotional
- Objective vs. Subjective
- Outside vs. Inside
- Theoretical vs. Pragmatic
- Me vs. Others
- Control vs. See what happens
- Separate vs. Connected

and build a way towards more humanly-tuned, humanly relevant, integrated and pragmatically operative ways of thinking and acting. Systems Intelligence approach seeks to articulate modes of being in the world that take into account our fundamental need, *to the extent that we can*, to sense and to influence, to understand and to engineer our environment, with our rational capacities and instrumental reason, in order to survive and flourish. It wishes to account for the fundamental human ability to connect with one's environment and other humans in modes that generate growth through realistically assessing the negative aspects of life yet at the same time placing emphasis upon positive dimensions of the human condition such as acceptance, encouragement, warmth, trust, optimism and partnership.

We suggest that Lincoln's brilliance amounted to just this.

Systems Intelligent Action is Inherent in Us

Leadership is about creating an impact. As Peter Drucker puts it, "It deals with action and application; and its test is its results" (Drucker 1989, p. 223). Similarly Ralph Stogdill, an early influential writer, defined leadership as "the process (act) of influencing the activities of an organized group in its efforts towards goal setting and goal achievement".¹¹ The dimension of the outcome is a key measure for the leader's work, providing for leadership its "evaluative component" (Buchanan and Huczynski 2004, p. 715).

The systemic perspective is crucial for leadership first of all because outcome-production in organizations *is* systemic, i.e., it emerges out of the interactive and cumulative functionings of complex entities with specific internal structure, interconnections and holistic interplay, and all this with reference to similar structures in the environment. The key concepts here include the customary notions of systems thinking such as

- whole
- cumulative effect
- interaction pattern
- causal loops
- feedback
- dynamic evolution
- effects with delay
- direction
- complexity.

¹¹ Stogdill's early article appeared in 1950 in *Psychological Bulletin*. In 1974 came out the first edition of *Handbook of Leadership* in which Stogdill attempted to cover everything research-based that had been written about leadership up until that time; subsequent editions have been undertaken after Stogdill's death by Bernard Bass. The third edition of the immensely useful handbook came out in 1990 (Bass 1990). Pointing out the multitude of different definitions of leadership, Bass notes that "there is a sufficient similarity among definitions to permit a rough scheme of classification. Leadership has been conceived as the focus of group processes, as a matter of personality, as a matter of inducing compliance, as the exercise of influence, as particular behaviors, as a differentiated role, as initiation of structure, and as many combinations of these definitions." (Bass 1990, p. 11) We shall operate with all these facets of leadership in mind in what follows.

A key task of any leader, as has often been pointed out in the literature, is to see the big picture, the functioning of the whole, the way various parts of a complex structure interact with one another, as well as to the dimension of the outcomes which will be visible only gradually. The leader will need conceptual and perceptual abilities to picture her organization as a holistic system with a direction and specific, interrelational and influence-prone characteristics. It is with respect to organization as such a system-to-be-engineered that a leader will form her strategies and modes of operating vis-à-vis the desired future.¹²

Here we shall not study the history of systems thinking in the context of leadership studies or the practice of leadership.¹³ Suffice it to point out that while it seems fair to assume that most leaders are intuitive systems thinkers that want to engineer their organizations-as-systems to function better, even after decades of study, few managers seem to acknowledge themselves as “systems thinkers”. Few managers have picked up the habit of drawing “causal loop diagrams”, in spite of their illustrative usefulness for representing systems dynamics. Even Senge’s *The Fifth Discipline* (1990), an international bestseller and a book famed for its articulative force and intellectual brilliance, still has not turned academically articulated systems thinking into a generally accepted building block and instrument base for actual management practice. As far as the practice of management is concerned, Systems Thinking somehow has yet to catch the fire¹⁴. Many systems thinkers are frustrated, as they perceive the necessity of conceptualizing holistic and dynamic relationships in the functionings of organizations, and the contribution Systems Thinking could make in that department. As Jeremy Seligman recently put it, “the benefits of practicing systems thinking ... are incontrovertible. Yet sometimes it seems doubtful that ST will ever gain the critical mass required to make it an integral part of how major corporations practice strategic thinking.” (Seligman 2006, p. 1)

The reluctance of the practicing managers to adopt the discipline of systems thinking as part of their day-to-day toolbox reflects a phenomenon which we believe is fundamental to acknowledge. Systems Thinking might seem too descriptive and explanatory an enterprise to strike practicing managers as a vital tool of immediate relevance to her everyday work. Systems Thinking might be useful when describing the functionings of complex phenomena, but the manager’s primary imperative is not to understand, model or represent but to act upon. It is that “bias for action” (using a phrase of Bruch and Ghoshal)¹⁵ which seems to hinder Systems Thinking from engaging a centre stage in the actual conduct of management.

Notice in particular that a leader needs to act even when full knowledge is not forthcoming regarding the systems she is in charge of and the relevant environment. Indeed, this is the case much of the time. Systems Thinking, causal loop diagrams and the like will benefit a leader’s work, along with market research, industry predictions, scenario planning etc., and can provide valuable insights, yet the key call is for interventions, engineering, decisions, and for action. Systems Thinking might be an essential, fruitful and productive form of thinking – yet only *thinking*, for a leader who shall be judged on the basis of her actions.

¹² For a survey of the key challenges of leadership as well as of the main traditions of leadership studies and of the relevant thematisations in this area, see Yukl (2006), Antonakis et al. (2004) and Bass (1990).

¹³ For a survey, see Jackson (2000).

¹⁴ This is also noted by Russel Ackoff (2006), the pioneer of systems thinking in management. For an intellectually tuned manager, an excellent place to start is Jackson (2003).

¹⁵ Bruch and Ghoshal (2004).

It is here where Systems Intelligence provides the natural next step to the Systems Thinking movement. Systems Intelligence points attention to the intelligence of an actor whose competencies are already fully active in the confines of a “within” she cannot step outside of. She is surrounded by uncertainties in the context of the present moment;¹⁶ she is living in a situation that unfolds; she is immersed by systems she needs to act intelligently in; she thinks, she feels, she tunes in and she projects – but most of all, she acts.

The Systems Intelligence approach wants to highlight the intelligence of a leader from within and with respect to systems even when those systems cannot be frozen to objective entities nor be reduced to conceptualized, rectified things for the leader to manipulate and control. Systems Intelligence is action-driven and context-bound intelligence with respect to wholes which are on the move and irreducible to any objectified representations. Intuitive, gut-feeling-like, emotional and instinctual aspects of the leader’s *raison d’être* take the forefront along with more analytical and objectifying modes of apprehending reality. And the thesis is this: we do possess such intelligence, fundamental for us as human beings, and it stems from an intuitive, instinctual and sense-like grasp of *what we believe is the system*.

We enter a situation and already a holistic experience has asserted itself. We sense the system, or what we take to be the system, partly with our knowledge and through our cognitive apparatus but also by making use of our more subjective, non-verbal, emotionally tuned, instinctual capacities. Particularly relevant are our capabilities for sensing other people’s intentions and our in-built need to figure out those intentions. Indeed, we operate as systems-reading systems with respect to environments we experience as systems. We do not know that much of none of those systems yet somehow succeed in operating with them – often acting superbly intelligently in the confines of those comprehensive, complex system structures.

There is, in other words, a little Lincoln in each of us.

What Does the System Generate?

From the point of view of Systems Intelligent Leadership, the most important system characteristics are revealed by three questions. The First Systems Question is:

(1) *What does the System generate – and to what extent is this what we want?*

A system might generate products, services, meetings, emails, and profits – but also outcomes such as fear. Indeed most business organizations do in fact generate fear, along with for instance indifference, cynicism, dislike, anger, withdrawal and rejection. A business system, however, could also generate hope, excitement, mutual respect, openness and trust – which is what Lincoln’s cabinet as a system started to generate. Such humanly-charged outcomes of a system are however often not perceived, or taken as fundamental. They are taken to represent individual contingencies and are viewed only marginally relevant, as opposed to the primary issues that concern the organization’s structure and goals.

¹⁶ For an illuminating study of the concept of the present moment, see Stern (2004). A related concept is that of a “living presence” as elaborated by Ralph Stacey in his studies on “complex responsive processes” (Stacey et al. 2000; Stacey 2001, 2003, and subsequent works). Stacey is severely critical of what he calls “Systems Thinking”. Stacey’s view is that the systems discourse is inappropriate for the description of organizational life as it assumes the key phenomena to be more thing-like than they actually are. But as Jukka Luoma (2007) argues in the present volume, Systems Intelligence perspective seeks to avoid the pitfalls of objectifying systems discourse which Stacey quite rightly criticizes.

Yet the Systems Intelligence perspective wants to highlight such outcomes as *something that the system generates*. A systems intelligent leader is concerned with the outcomes of the organization she is leading also in these “human, all-too-human” respects that conventional accounting deems irrelevant and does not take seriously. They are a key part of the seemingly invisible outcome of the system, fundamental for the systems intelligent leader to stay in tune with and to operate with respect to.

W. Edward Deming, the single most important person responsible for the upraise of Japanese industry since 1950, is famed for his “Improve constantly” -thinking. In his book *Out of the Crisis* Deming presents his “14 Points for Management” that were the intellectual cornerstones of the revolution he helped to emerge in Japan. Along with points such as “Create constancy of purpose toward improvement of product and service” (#1), “Adopt the new philosophy. We are in a new economic age” (#2), and “Improve constantly” (#5). Particularly striking is point #8 which reads: “Drive out fear”. Deming comments: “Such a system formed the basis for lessons for top management in Japan in 1950 and in subsequent years” (Deming 1982/1994, p. 23)

A business system can create fear, Deming observed; the leader’s job was first to acknowledge this, and then drive it out.

Yet sometimes it might be beneficial to ride on fear. In his illuminating study *Mastering the Art of Performance*, Stewart Gordon relates a story of the master pianist Arthur Rubinstein, who said, “Fear before each concert is the price I pay for my superb life”. (Gordon 2006, p. 8) Rubinstein had a system that worked – and that system involved generating fear as part of its excellent functioning. Rubinstein’s systems intelligence amounted to operating smoothly with the fear parameter.

No doubt Jack Welch’s leadership, one of the most efficient in industrial history as judged by economic criteria, also generated fear. But it was fear that was put in perspective with other systemic aspects in Welch’s GE, particularly the call for excellence. Recall Welch’s famous principle according to which at GE, a business had to be “No. 1 or No. 2 in its market. If it wasn’t, the managers had to fix it, sell it, or as a last resort, close it.” (Welch 2005, p. 39) Fear can serve a useful function and a Systems Intelligent leader wants to benefit with the right type of integration of that function in the whole she is in charge of.

Notice that the First Systems Question has semi-mechanical and object-like components to it, natural to approach with an objectifying command-and-control mindset and scientific methods. Crucial aspects of the generative output of a system can be conceptualized, measured, engineered, and controlled as objects. The logistics of an organization, for instance, can and should be studied as an objective system, and lead as such. Yet there is more – even to a system of logistics of a manufacturing company. Indeed, the leading company in its field, Nokia, in its logistics for the production of mobile devices has consciously based its thinking on acknowledging the equally critical subjective and human dimension along with parameters that can be conceptualized objectively.¹⁷

Command of the mechanics of a system is important, and yet there is more. Overlooked though they often are, these systemically relevant human dimensions point to what might seem like marginalities of the organization and banalities in the way people behave, interact, and

¹⁷ The second author of this article has worked extensively with Nokia for over a decade and can document this first hand. In his last address to Nokia’s stakeholders in 2006, the retiring Chairman and CEO Jorma Ollila, emphasized strongly the relevance of culture for the Nokia’s stunning success during his era.

communicate. Yet Systems Intelligence maintains that the dimension of microbehaviours reflects and represents a system that a leader must acknowledge and lead. Part of the outcome of the organization is a function of such microbehaviours. We are here introduced to a leadership space of considerable systemic relevance.

In his important studies on group behaviour, Marcial Losada and his collaborators have located three particularly relevant categories of microbehaviour as exemplified by the way people interact in a business meeting: Positivity/Negativity, Inquiry/Advocacy and Others/Self.¹⁸ Losada's team found striking correlations between a business team's performance and the microbehaviours of the team members in business meetings:

TABLE 1. Losada results on high performing teams.

	Inquiry/Advocacy	Positivity/Negativity	Others/Self	Connectivity
High-Performing Teams	1.143	5.614	0.935	32
Medium-Performing Teams	0.667	1.855	0.622	22
Low-Performing teams	0.052	0.363	0.034	18

In our terminology, the system of a high performing team generated more positive behaviours, as well as more inquiry-mode behaviours and Other-referring behaviours than the systems of low performing teams did, thus balancing the effect of negativity, advocacy and self-referring speech acts. The key point here is to look into such microbehaviours as a relevant leadership question, i.e., as a question of systemic relevance from the point of view of the leader. This insight, overlooked by conventional business thinking, is one of the cornerstones of Systems Intelligent Leadership. In business life and to the extent we believe Losada's findings are representative, a Systems Intelligent Leader wants to maintain the P/N, I/A, and O/S ratios of his team at a level that support top performance.

Life is about choice, Systems Intelligence approach maintains. We do have a choice. But much of the time we do not realize the choice, or we dismiss its relevance, creating indifference and mediocrity. We do not acknowledge the implications, much less the potential of systemic effects of our behaviours and even microbehaviours when they push the right buttons at the right time. People are sensitive, and moveable from within. Systems Intelligence is ability to operate with this dimension, fundamental to us as human beings.

"One of the major problems in marriage may be described as the *regulating* negative affect", John Gottman and his co-workers write in their impressive study *The Mathematics of Marriage*

¹⁸ See Losada (1999), Losada and Heaphy (2004), and Fredrickson and Losada (2005). For a mathematical discussion of some of the dimensions of Losada's work, see Luoma, Hämäläinen, and Saarinen (forthcoming).

(Gottman et al. 2002, p. 88). They point attention to negativity-generating microbehaviours in marital interaction.

“The balance between negative and positive affect is absolutely critical in predicting the longitudinal fate of marriage.” Referring to extensive empirical research conducted by Gottman and his associates, the authors report the striking results according to which “during a conflict discussion a few months after the wedding, only 30 seconds of positive affect (out of 15 minutes of interaction) differentiated couples who would eventually wind up either divorced, stable but unhappy, or stable and happy in the next six years. The happy stable couples had 30 seconds more positive affect (affection, humour, interest, or engaged listening) out of 900 seconds than the unhappy stable couples. The unhappy stable couples, in turn, had 30 seconds more positive affect than the couples who eventually divorced.”

Gottman’s quantified approach to happiness in marriage is striking in its results. Like Losada’s results with high-performing teams, Gottman’s work highlights the critical role microbehaviours play in human systems, and vis-à-vis the effects such systems produce.

The leader’s attitude is to tune into this critical dimension of human life.

Systems Moulding People

People change. They may become more or less generous, they may become more or less egoistic, more or less hopeful, more or less respectful for others, more or less open, curious, excited, encouraging, laughing, source of delight for others, more or less caring, inspired and growth oriented. How do they change? The Systems Intelligence wants to highlight the category of outcome in the human realm. Thus the Second Systems Question reads:

(2) *How do systems mould us as human beings?*

The second systems question stems from the observation that in actual life the gradual changes in people’s personalities, modes of being and ways of life often do *not* reflect their conscious choice. In addition to exercising their existential possibility to make a genuine choice, people often just follow suit, fit into a custom or a convention, and conform to what others are already doing.¹⁹ We engage ourselves with what we assume is “the wisdom of the crowd”,²⁰ and sometimes get crafted into styles, attitudes, modes of being and acting that soon seem like a second nature. Yet the identity we have gradually assumed might be quite distant from what is truly and internally our authentic aspiration. What we have become might be a shallow version of ourselves, or a monstrous version – experience indicates that even the most intelligent, morally integrated and civil people can be influenced to act in ways which in retrospect are perceived to be disgraceful and even appalling.²¹ Systems do tricks on people, generating patterns, tendencies, ways of being and life styles. Systems can define your actions and your microbehaviours, and craft a you-for-

¹⁹ This is not the place to discuss the key category of choice at length. For an illuminating discussion of some of the key philosophical dimensions with an eye to the work context, see Koestenbaum and Block (2001).

²⁰ The phrase is from Surowiecki (2004). The line of thought of Surowiecki’s illuminating book supports our basic line of thought, we believe, but we will not study the matter here in more detail.

²¹ “Obedience to authority”, using the term of Stanley Milgram’s classic study, can result in deeply disturbing behaviors (Milgram 1974/2004). The human capacity to evil has of course been demonstrated in history beyond any doubt. Ordinary people of high ethical standards can be led to conduct atrocities (see e.g. Rhodes 2002; Aly and Heim 1991/2002).

others and a me-for-yourself that is quite far from what you might have wanted. A system might have gotten the upper hand, defining what appears to you and others as your personal identity.

Most people in our culture on an average day at work do not smile very much. Many do not radiate warmth, or generate in others a feeling of being accepted when coming into a meeting. Yet they could. To smile, to radiate warmth, to generate in another the feeling of being accepted – these are quintessential human possibilities all of us possess as part of our innate constitution. But a system might make them oblivious. Indeed this is what work-as-a-system is doing to most of us. It moulds us to relatively unsmiling, cold, others-disrespecting versions of ourselves. But the opposite possibility is there as well – as an individual choice and as a system. In a system of uplift and encouragement, people will mould towards smiling, toward positive affection, towards warmth, excitement and mutual respect.

Consider the emphasis with which Jack Welch sets out in his book *Winning*:

“What a huge problem it is. Lack of candor basically blocks smart ideas, fast action, and good people contributing all the stuff they’ve got. It’s a killer.” (Welch 2005, p. 25)

Welch points to *candour* as key dimension for a leader to look after in the system he is in charge of. And this because “candor works” (p. 35). But candour cannot work unless people generate behaviours that display candour. This people do not do automatically, on the contrary. People are too lazy to do it, might have self-deceptive reasons to back themselves up in white lies, and also because “they don’t look at the big picture”. “Even though candor is vital to winning, it is hard and time-consuming to instill in any group, no matter what size.”

A system could help and should, but the system will not be there unless there is a desire and will to create it. This will involve hard work “because you are fighting human nature and entrenched organizational behaviors”, and it is going to be time-consuming. “At GE, it took close to a decade to use candor as a matter of course, and it was by no means universal after twenty.” (p. 31)

The point here is that there is no level of candour that is somehow automatically guaranteed in people. Candour will reflect the system, as people are moulded by the system. Therefore the Systems Intelligent leader wants to stay in touch with what the system is moulding of the people that the leader is leading.

Like the First Systems Question, the Second Systems Question focuses attention upon parameters that might seem irrelevant and mundane from the point of view of an organization’s purpose. The idea here is to take seriously the dictum that “Structure generates behaviours” and bring that to the level of the tendencies, patterns of behaviour and action-identities of people. Systems mould people, influence their actions, ways of interaction, ways of talking and ways of thinking, and thus create an impact that eventually is going to have a systemic, far-reaching impact. The effect is going to be indirect and it takes place with delay. It operates via a system – a system that is beyond the frame of reference a typical board room meeting is basing its agenda on.

There might be systems that allow for a person to disrespect a colleague, in some cases encouraging him to do so. Perhaps it is thought that competition between colleagues creates welcome dynamism into the organization. The emerging system might generate disrespect, but that is dismissed as a minor problem. Yet disrespect is going to have an effect through the people being disrespected and also in terms of the persons that gradually adopt disrespect as part of their standard behaviour at work. People that disrespect one another are not likely to share ideas or stimulate upsurge of new ideas through mutual excitement. Similarly, the lack of discipline in attending meetings, or low energy attention while present, will generate behaviours that eat away

people's enthusiasm which in turn moulds those people towards low-energy versions of themselves.

In a culture of respect, people are more likely to take risks. When there is trust in the fairness-behaviours of others, you can even count on failures being treated with a focus upon the fact of the matter, with judgment and moderation. There is a connection from microbehaviours of fairness to the macroquestion of co-creativity, yet many organizations dismiss the question of how it moulds people's behaviours in the dimension of microbehaviours.

A Systems Intelligent leader wants to stay alert to the tendencies of change in her people. If people change anyway, in their behaviours and attitudes, ways of interaction and patterns of thinking, is that change in people in line with what we want to accomplish?

The In-Between

The Third Systems question is:

(3) *What kind of In-Between does the System endorse?*

People influence one another far beyond what is visible; people are fine-tuned, indeed hard-wired to one another. Even physiologically, we are more closely connected to one another than we often realize or the traditional perspective suggests. In her groundbreaking book, Leslie Brothers (1997/2001) argues for "social brain". "From the beginning, human infants attend to social stimuli, suggesting that inborn brain mechanisms direct them towards the sights and sounds of other human beings. As a result of this predilection, they receive a steady stream of social information, and neural assemblies representing social objects flourish." (Brothers 1997/2001, p. 12).

Further studies to the same effect include Daniel N. Stern (2004) and Daniel Goleman (2006). The argument is largely physiological and points to the hard-wire that connects us as human beings. "Brains loop outside our awareness, with no special attention or intention demanded." (Goleman 2006, p. 40) "The social brain is the sum of the neural mechanisms that orchestrate our interactions as well as our thoughts and feelings about people and our relationships ... the social brain represents the only biological system in our bodies that continually attunes us to, and in turn becomes influenced by, the internal state of people we're with." (ibid., p. 10)

The point is well taken. People are connected to one another far beyond what is suggested by traditional Cartesian models of subjectivity or by traditional models of interconnectivity. "Until now neuroscience has studied just one brain at a time. But now two are being analyzed at once, unveiling a hitherto undreamed-of neural duet between brains as people interact." (ibid., p. 28)

Systems Intelligence makes use of the functionings of the human "social brain" and its physiological mechanisms of social connectivity of the kind that Brothers, Stern and Goleman describe. People read situations as systems, we hold, and part of that is the result of the workings of our social brain and what Stern calls the "psychology of mutually sensitive minds".²²

²² Stern's powerful analysis of intersubjectivity as a "primary system of motivation," (p. 97) is particularly relevant for Systems Intelligence. We believe Stern's insightful and bold synthesis yields strong support for our perspective, and should be studied in more detail than is possible here. Stern highlights intentions and emphasizes the human ability to read intentions "as a mental primitive" which arises in infants preverbally. "Inferring intentions in human behavior appears to be universal", Stern writes. "Intentions, in one form or another, and in one state of completeness or another, are always there, acting as the engine driving forward

Yet there is more to situations as systems, more to people's interconnectedness in those systems, more to the *In-Between*²³ of people, than just the social dimension. Observing *relationships* as fundamental is one step; observing the *systemicity* of those relationships another. Systems Intelligence is based on the insight that not only are we constituted in relationships, but also in relationships-in-the-flux, in and through relationships that constitute systems and with respect to what we take to be the systems.

Particularly relevant are the following aspects of systems:

- a. Systems are not absolute, but emerge as a result of a man-made interpretative process;
- b. Systems are always subject to redefinition, and to human choice;
- c. Once apparently fixed, Systems generate a feeling of being overwhelming and in charge, extending their power to a vast array of microbehaviours including ones unrelated to what seems like the main functionings of the System;
- d. Systems are deceptive for the human agents within, because of the illusion of command-and-control they create, together with appearance of fixedness and permanence of other agents in that system. People might seem like sturdy supporters of a System they in fact despise, but you do not know about it.
- e. Systems create possibilities for self-supporting spirals of uplift in which people generate positive energy, excitement, encouragement and excellence through connectivity of the kind that sparks human flourishing.

Point (e) could not be overemphasized as it brings out the positive overtone of Systems Intelligence. Systems Intelligence seeks emergence – indeed what J.T. Bergqvist (2007) calls *superproductivity*.²⁴

In a video cut from the original three tenors concert in 1990 in Rome one can see a particularly impressive example of this uniquely human possibility unfold before one's eyes as Placido Domingo performs "No puede ser" with the support and encouragement of Zubin Mehta as the conductor.²⁵ A rare moment of stunning uplift is created in front of one's eyes as the two masters of their craft connect to create an instance of superproductivity that takes even themselves by surprise. The example is particularly impressive, and rare by any standards. Yet the possibility it demonstrates is completely generic – the possibility to connect and to bond, the possibility to create an encouraging and uplifting in-between, and reach out to the upscale register from the platform that emerges.

the action, story, or mind." (p. 86–7) Using the systems discourse one could say that reading intentions gives rise to the construction of systems, and thus to behaviours appropriate with respect to those systems. Sensitivity and preverbal sensitivity to intentions of others is a human fundament, and so is the emergence of the functionings of forward-driven wholes in which the self is a part along with other people.

²³ We treat the concept of the "In-Between" (and the "In-Between of people") as a primitive that points beyond the subject-object discourse, seeks not to objectify the space it names, and calls attention to those features of the human condition that give rise to relatedness, connectivity and interconnectivity, intersubjectivity, reciprocity, loops of interpretation and meta-interpretation, and to shared experience. "The In-Between" is felt and experienced rather than is fully cognitively known, and often involves intangible dimensions.

²⁴ Bergqvist (2007) in this volume and originally in Finnish in Bergqvist (2005).

²⁵ "The Original Three Tenors Concert. Carreras Domingo Pavarotti in concert Terme di Caracalla, Roma 7 July 1990", The Decca Record Company 1990.

The In-Between has demonstrably created miracles, Systems Intelligence approach emphasizes. Instead of pushing those glorious moments of human flourishing and uplift to the special category of exceptions, the Systems Intelligence approach takes them as lessons of generic relevance. We are systemic creatures: let us take this possibility to its height – and make the systems we create excel. It is this call towards flourishing, at the core of Systems Intelligence, that goes beyond Gardner’s multiple intelligences, beyond Emotional Intelligence, the recent emphasis on Social Intelligence, and also what is provided by traditional Systems Thinking.

Lincoln’s brilliance, as described by Kearns Goodwin, is not appropriate to reduce merely to a keen functioning of “social intelligence” in Lincoln. The connectivity and spirit that Lincoln managed to create among his former rivals and opponents took place in a specific real-time context of action in which Lincoln made the system they all were parts of *work*. It is in facilitating that uplift-of-the-system where Lincoln’s true brilliance lied, as opposed to (say) the highly important yet secondary social dimension.

Lincoln stretched the system beyond what anybody thought was possible.

“I Have a Dream”

Consider the action of Martin Luther King Jr in Washington D.C. on August 28, 1963, as described in his autobiography:

I started out reading the speech, and read it down to a point. The audience’s response was wonderful that day, and all of a sudden this thing came to me. The previous June, following a peaceful assemblage of thousands of people through the streets of downtown Detroit, Michigan, I had delivered a speech in Cobo Hall, in which I used the phrase ‘I have a dream.’ I had used it many times before, and I just felt that I wanted to use it here. I don’t know why. I hadn’t thought about it before the speech. I used the phrase, and at that point I just turned aside from the manuscript altogether and didn’t come back to it. (King 1998, p. 223)

This description of King’s sudden decision to reject a pre-written text in front of half a million people, in order to go along with a phrase he suddenly remembered, gave rise to one of the most uplifting speeches of all time, and demonstrates the workings of Systems Intelligence at its best. The “In-Between” of people, as felt and shared by Martin Luther King, gave rise to a possibility King was sufficiently sensitive to connect with in spite of the fact that he was in the midst of a high-pressure task, in a supremely stressful situation, and without the luxury of the backing of a precalculated evaluation concerning the measurable rational of what the likely outcome would be *should he go with that spontaneously emerging phrase*. King went on to act in a way that made the system work *superproductively* and beyond what anybody could have guessed was possible in the first place. While demonstrating emotional, social, linguistic and even musical intelligence King’s brilliance in Washington does not reduce to them. We suggest it demonstrates Systems Intelligent Leadership of the kind fundamental to all of us.

Our reference, in connection of Systems Intelligence, to certain key actions of giants such as Abraham Lincoln, Placido Domingo, Zubin Mehta, or to Martin Luther King Jr is intended to elevate our everyday actions *in the right direction*. Instead of categorizing their actions as something too extraordinary to fall within the scope of the generic fundamentals of human intelligence, we suggest these actions are paradigmatic of the kind of focus we should adopt. Their brilliance point to a form of intelligence we all possess to some extent, and it is this key competence that humans have that the Systems Intelligence approach wishes to reinforce and strengthen.

Systems Intelligence in Zaire

At the age of 32 on October 30, 1974, Muhammad Ali entered the ring in Zaire as a challenger. The hard-hitting reigning champion Foreman, at 25 and undefeated, was three-to-one betting favourite. In his acclaimed Ali-biography Thomas Hauser documents people that witnessed the fight:

Ferdie Pacheco (Ali's doctor): "What Ali did in the ring that night was truly inspired. ... He could think creatively and clearly with bombs flying around him. And he showed it all when it mattered most that night with the most amazing performance I've ever seen. Somehow, early in the fight, Ali figured out that the way to beat George Foreman was to let Foreman hit him." (Hauser 1991, p. 274)

Archie Moore (Foreman's cornerman): "George was the most dangerous puncher of his time. ... And everything George did would have been well and good, except for several small details. Ali protected his body with his forearms and elbows. He was able to avoid devastating experience of George hitting him in the head by leaning way back against the ropes. And when George's blows did land, Ali took them with a marvelous show of disdain and managed to convince George that George couldn't punch. Then George got tired." (p. 275)

Angelo Dundee (Ali's coach): "When he went to the ropes, I felt sick. ... Styles make fights, and George had the perfect style for Ali. But everything we planned was built around not getting hit." (p. 276)

Muhammad Ali: "I didn't really plan what happened that night. But when a fighter gets in the ring, he has to adjust according to the conditions he faces. Against George, the ring was slow. Dancing all night, my legs would have got tired. And George was following me too close, cutting off the ring. ... So between rounds, I decided to do what I did in training when I got tired. ... So starting in the second round, I gave George what he thought he wanted. And he hit hard. A couple of times, he shook me bad, especially with right hand. But I blocked and dodged most of what he threw, and each round his punches got slower and hurt less when they landed. Then I started talking to him. 'Hit harder! Show me something, George. That don't hurt. I thought you were supposed to be bad.' And George was trapped." (p. 275)

George Foreman: "Muhammad started talking to me. I remember Angelo shouting from the corner, 'Muhammad, don't play with that sucker,' but Muhammad just kept playing. The 'rope-a-dope' was what he called it later, and it worked. You see, Muhammad's antennas were built to look out for big punches. And with the style I had, my height, and my tendency to throw big punches – no matter how hard I hit, Muhammad had the instinct to get ready for each punch, ride it through, and be waiting for the next one. I was the aggressor; there was no doubt about that. I was throwing most of the punches, but I knew that in some way I was losing." (p. 277–8)

Muhammad Ali: "I was on the ropes, but he was trapped, because attacking was all he knew how to do. By round six, I knew he was tired." (p. 277)

From the systems perspective, what Ali did in Zaire was remarkable because of the intelligence and leadership he demonstrated *on the fly* as that epic fight unfolded. He used the loose ropes to his benefit, as that allowed him to lean back away from the devastating punches of his opponent (the "rope-a-dope", as it was later called); on the face of it setting himself as a target-soon-to-be-destroyed under the bombs of the killer puncher Foreman, Ali was in fact staging his opponent for a trap in which the reigning champion punched himself out in the heat and humidity of the

African night in the outside stadium in which the fight took place; leading the “experience economy” of the fight, Ali frustrated his opponent with his comments during the fight, while at the same making the largely African crowd support him with the shout “Ali bomaye” (Ali kill him). Out of two black fighters, Ali managed to get recognized as the King of Africa, rounding up the stadium for his own support.

Notice that Ali’s Systems Intelligence in the Foreman fight can naturally be thought to have involved some amount of Systems Thinking, particularly regarding the “causal loop” from Foreman’s delivery of punches to his state of tiredness. On the face of it, Foreman was tiring Ali, but on a deeper level Foreman was tiring himself out. Yet such objectifying knowledge does little by way of capturing the ingenuity of Ali’s action *as the action unfolded* in an ongoing fight in the course of which nobody can tell if actually Foreman is going to tire out before Ali gets tired. Afterwards one can refer to causal loops as descriptions of what took place but what took place emerged out a number of other systemic parameters and a myriad of human choices the overall intelligence of which in the actions of Ali is what we believe should be the focus of fundamental interest. And this is the focus of interest of Systems Intelligence. In order to capture Ali’s brilliance, causal loops come too late, yet the intelligence is there for us to admire and to activate from within us.

It seems to us undoubted that Ali in the course of the Zaire fight did demonstrate tremendous intelligence of the kind we should approach with the intention of reinforcing it everywhere. We should look for the specifics of the context of our action from the point of view of the success conditions perhaps involving systemic possibilities beyond what is customary defined as “the ring”. Perhaps “the ropes” are “loose,” perhaps they don’t define the space of operations quite so narrowly as normally *this specific night*. Perhaps the opponent could be lead to a dance which will wear him out, and open the door for a surprise victory for the challenger. It is such strategically minded, context sensitive modes of being that Systems Intelligence wants to highlight in contexts of action and against an uncertain future.

Emergence is the key word here – emergence, not in the somewhat technical sense often brought forth in connection with holistic thinking and Systems Thinking but rather as a concept referring to a process taking place with an upsurge, arousal or becoming-visible as it is *taking form in the context of the living present moment*. Systems Intelligence, as a competence within us, is not a form of hindsight, nor a form of propositional knowledge or “knowing that”, but a more fundamental and original core competence of human intelligence in action and in the midst of challenges already charging over. It stems from the human capacity to strive towards to success and survival in the context of life as it is taking place in ways that are unpredictable and within the confines of impartial knowledge, the instinctual and guesswork, challenge and pressure, yet at the same time against the background of a future that could be.

Situation as a System

Leadership is action with leverage.

That leverage points to the upsurge of a future that has an emergent nature and requires attunement to parameters that cannot be reduced to *knowing that* or other forms of propositional or hindsight-based categories, we have argued. We believe leadership should be approached with keen contextualism in mind and yet not get trapped into mere contextualism. Systems Intelligent Leadership does not reduce to mere “situationism”, but again takes the perspective to the next

level.²⁶ Systems Intelligent Leadership is situationism and contextualism with a generic foundation. Our perspective wants to pay homage to the particulars of a context, yet upgrades the view to a generic level through the systems concept. This will pay due respect to aspects of leadership which are context-, situation-, and people-sensitive, and will point to forms of sensitivity as well as possibilities of constructive leadership interventions that are all too often neglected and sometimes dismissed as insignificant.

Systems Intelligent Leadership calls for a realistic acknowledgement of the “knowing how” capacities, situational reading skills, instincts and sensibilities of a leader in the specifics of situations that are emerging. This calls for an extension of many of the premises of accepted leadership studies and conceptualizations. From our point of view, many conceptualizations of leadership are based on idealized, abstract and often formalized notions that do not reach out to the actual functionings of a leader. A leader’s primary concern will always be on specific, often unique situational factors, and her success will be judged on the basis of something that is taking place at the present moment and with respect to a future which is yet to emerge. As opposed to leadership approaches that abstract away from the context and from the living presence, creating an illusion of a potentially intellectual omniscience and an illusion of the possibility of an object-like, rectified and thing-like focus-space for the leader, Systems Intelligent Leadership perspective will insist on the present moment and on the context of action as the key parameters that define a leader’s condition. It is on such a platform of contextuality and situational particularity, at a course of time that is irreversible, that the leader demonstrates her intellect for productive action – in a way that structurally repeats the imperatives of the human life since the times immemorial.

We speak of the situation as a system because it is fruitful to emphasize such features of the context that are active, pressurizing and commanding vis-à-vis the human agents. The situation as a system restricts us and puzzles us, it pushes us and misleads us, seduces us, it leads us and frightens us. But it also suggests possibilities and challenges us to challenge itself with our ingenuity. We share with it a dance of influence. In the living presence it operates like an invisible partner with a will, set of desires, and an agenda of its own. In many cases and concerning a myriad of matters, it seems to have the upper hand and seems to choose for us. It comes through as an active partner in our lives. The situation is on, the context prevails, and something major is emerging. That’s the condition of our lives, we hold, life within systems.

And yet we never know, and have never known, exactly what the relevant systems are. Systems can be re-identified, they can be reinterpreted, reframed; they can be redefined and influenced through choice and through actions and through the introduction of reinforcing loops that at first seem seeds only. In the midst of all that mess – or what intellectually seems like mess – people have survived, with some sort of systemic and on-the-fly intelligence, indeed sometimes have excelled.

Hence the concept of a system, as a general notion to point to what the leader is working from and with respect to – as a natural continuation of the human basic existential situation of facing the imperative to act in situations that are intellectually opaque and partly hidden, in the process of coming and uncertain in their backfirings, sudden upsurges and idiosyncrasies.

The Leader’s Imperative

Human life is elusive, and a leader’s life is particularly elusive.

²⁶ On situationism in leadership, see Bass (1990).

The systems in the midst of which we conduct our lives are non-transparent, and the leader often does not have time to wait for anything like full knowledge. She needs to act, reminiscent of a mother whose infant cries in the middle of the night, or like a father playing with his child hoping for the emergence of skills that are yet to come. When an infant is born, parents start to talk to her, caress her, and touch her. Together they enter an in-between, and work towards the miracle of growth as it starts to emerge.

You can fly with a system even when the system is ultimately elusive. You can teach a child a language even though you do not fully know the language and even though it remains a mystery exactly how or why the process succeeds. Somehow the system of language is contagious and moves itself ahead through us. Infinitely more in language learning alone is taking place than words will name or even the most informative of subjects will be aware. Somehow you manage to create a momentum, a spiral, an upsurge, passing on of a system you cannot describe and one that you recognize only vaguely, through its actions. The child will join in, but had she been taken to some other country and context, the language she commands so superbly now would be beyond her command, including even ability to master the physical movements of tongue and ability to hear differences in sounds so obvious to her now. Human system operating skills activate themselves, feed upon themselves, and move on like a dance of uplift. A leader wants to benefit from this human possibility of systems that can and will emerge. She wants to make use of the possibilities of human-systemicity even though the desired outcome is likely to be elusive perhaps because it involves other people and an in-between, or because it involves the future which-is-yet-to-come, a whole that is only partly visible, or because the leader herself is part of the whole she is attempting to influence.

This means that the key assumptions of Naive Cognitivism need to be rejected – ideas according to which leadership could be characterized in terms of cognitive parameters that define a leader’s intellectual stance vis-à-vis the organization and the future she is striving to achieve on a subject–object -level. Objectifying categories of naive cognitivism based on a Cartesian subject–object -mindset might be tempting to adopt as part of what seems like the standard toolbox of a scientifically based worldview. Yet we believe a sound conceptualization of leadership cannot be based on any such mental models that will not do justice to what true leaders *de facto* do right.

Equally clearly, Naive Influentialism will also go over the board. By Naive Influentialism we mean the view according to which the influence a leader is seeking could be articulated in terms of object-like categories such as “organization”, “the market”, “product lines”, “the personnel”, “human resources”, “critical talents”, together with equally objectifying categories of more dynamic nature such as “competition”, “the market”, “supply chain”, “customer interface” and the like. A leader’s influence calls for categories that point beyond the mental models of objectifying and rectifying world view, traditionally and currently in the fashion.

Consider the case of a symphony orchestra conductor. She is a leader. Yet it is clear that whatever means she uses to make the orchestra to excel, her actions will be highly context sensitive, brought about via complex artistic and personal sensibilities only some of which could be understood or conceptualized in objective terms. If followed by the keenest of observers, even afterwards it will not be possible to explain objectively exactly why the performance that became reality did emerge. There is too much subjectively intensive life taking place in a top performing orchestra under a great conductor, for the process to be explainable in objective, rectifying terms even afterwards.

Our thesis is: the busy subjective human life, the immensely rich world of emotions, inner subtleties and relations-sensibilities, so obvious for the leadership of a top performing symphony

orchestra, is a priority everywhere. A symphony orchestra is relevant, indeed paradigmatic for leadership studies and understanding?²⁷

The subjective dimension and the in-between dimension are the key here. Suppose someone argues that the functionings of a conductor with an orchestra is but of marginal interest for leadership studies because the primary focus of leadership studies should be business organizations which have identifiable objective characteristics as their foundation, as opposed to vague and subjective people parameters. People parameters, the argument would continue, do not count in business the decisive way they do in the performance of an orchestra. An orchestra is too people intensive an organization to be of primary relevance for a business leader, could be suggested.

But our view is that this line of thought amounts to cynicism. We believe the focus of leadership should be excellence, but that cannot be achieved unless people find a way to give their best and to grow with the process. But that calls for the human dimension to be taken seriously as part of the functioning of the system if that system is to function at the peak of its possibilities – and that irrespective of the domain in which we operate.

Why is the “human side of enterprise” so hard to take seriously in business contexts? Partly because the leader’s imperative is to generate change, and that with urgency, the tendency is to overfocus on *objectively definable features* in whatever is to be changed. The human side of enterprise introduces the leader to a cosmos that easily seems too rich – the leader wants to operate with something that can grasped with clarity and speed, with a feeling of comprehensiveness and conclusivity. The leader may want simplicity, not complexity, in order to know how to act.

“The two-word sign on my desk genuinely summarizes my whole philosophy: I’M RESPONSIBLE”, writes Rudolph W. Giuliani, the famed New York Mayor (Giuliani 2002, p. 69). Even a word statement can serve a function – it might make a system work according to plan. Indeed, one is reminded of the fact that even a person like Benjamin Franklin, a towering figure of tremendous intellectual prominence, felt that he needed such simplistic assertions in order to keep his system right on course.²⁸

As we recall Peter Senge once put it, it’s not what the vision is but what the vision does. Recall Churchill’s tremendous words as he announced the necessity to plan and construct a floating harbour to the Normandy coast, against the enemy fire and against the advice of the engineers that deemed it impossible: “Let me have the best solution worked out. Don’t argue the matter. The difficulties will argue for themselves.”

Any focus will come with a price. The price is leaving out whatever is not in the focus. The leader’s call for action will involve prioritizing, simplification and dismissal of the secondary but what goes to marginal might prove vital. It is imperative for effective action to follow Steven R. Covey’s well-taken advice and “put first things first” but sometimes that leads to catastrophically

²⁷ There is but one brief reference to “managers as conductors” in the influential *Bass & Stogdill’s Handbook of Leadership* which in its over 1000 pages covers the field of leadership research comprehensively (Bass 1990, p. 28).

²⁸ In his biography of Franklin, Walter Isaacson writes about Franklin’s famous project for “moral perfection”: “This rather odd endeavor, which involved sequentially practicing a list of virtues, seems at once so earnest and mechanical that one cannot help either admiring him or ridiculing him.” (Isaacson 2003, p. 89) Yet the system seems to have worked for Franklin.

misplaced attention as something that came first a moment ago now comes second or vice versa. As the Intel chief Andrew Grove aptly remarked, in business “only the paranoid survive”²⁹ – the catch is to retain focus and remain open to possibilities beyond that focus *at the same time*.

This type of “paradoxes of leadership” are natural to approach from the Systems Intelligence perspective, as indeed Jouni Kauremaa (2007) suggests in the present volume.³⁰ It is a call to develop a “system of focus” alongside with “a system of staying open” in a “(meta)system of apparently conflicting powerfields”. And strange though it may seem to an intellectual outsider, there are people that have been able to accomplish that.

The boundaries of systems can always be redrawn. For the Systems Intelligent leader it is essential to avoid the pitfalls of *misplaced concretism* and *overtly zealous abstractionism* when defining one’s focus of attention and agenda of action. She needs an ability to think in terms of the concrete and in terms of the abstract. And yet she needs the ability not to fall too blindly to either one, or to any particular form of either one. Working on a promising merger and acquisitions deal might feed the leader’s ambition for a quick break to increased profits, and yet might display both the pitfalls mentioned – particularly when we remember that according to research, most merger and acquisition deals fail to meet the expectations raised by them (Teerikangas 2006).

Systems Intelligence is essentially applicative and essentially tied to circumstances. Its secure base is the particular and the present moment – and from that base it operates with the interest to nurture the desired outcome and cultivate its realization. The imperative of a Systems Intelligent leader is essentially one of constantly staying in tune with the possibilities and requirements of whatever is emerging.

You need to focus. You need to crystallize and constantly go the core. You need to simplify your message. You need to put your vision perhaps to one sentence. And yet you must keep in mind that the organization is an abundantly rich human whole, a system of systems, never any one “thing”, however complex. It is the vitality, the life of the organization that you ultimately lead and are responsible for. Do not rectify that life, do not create an atrophy out of it, the leader’s motto says.³¹

²⁹ Grove (1999).

³⁰ A related line of thought concerns the possibility to apply the Systems Intelligence perspective to the study of the paradoxes articulated by Christensen in his *The Innovator’s Dilemma*. Christensen does not use the systems terminology. The one time he does employ it is enough to show how naturally the Systems Intelligence perspective would fit into the framework Christensen develops: “most resource allocation systems work in a systematic way – whether the system is formal or informal. It will be shown later in this book that a key to managers’ ability to confront disruptive technology successfully is their ability to intervene and make resource allocation decisions personally and persistently. Allocation systems are designed to weed out just such proposals as disruptive technologies.” (Christensen 1999, p. 109, fn. 3.) The distinction between “disruptive technologies” and “sustaining technologies” is critical for Christensen (see Christensen 1997; Christensen and Raynor 2003).

³¹ Systems Intelligence calls for a more vitalistic language than typically is allowed in the confines of the intellectually and academically respectable. Let us recall that even emotions were long disrespected as a theme of study. Here the reader will find Bateson’s posthumous *Angels Fear* (completed by Mary Catherine Bateson) particularly visionary. Recent important scholarly contributions to the cause of a more life-intensive topicality in research include Randall Collins’ *Interaction Ritual Chains* (2004) with its concept of “emotional energy”, Stern’s *The Present Moment* (2004) (especially Stern’s concept of “vitality affects”) and the stunningly original work by Christopher Alexander in his four-volume *The Nature of Order* series (2002–2005). The concepts of “flourishment”, “hope”, “upward spirals”, “growth-fostering”, “life-giving”,

Not feeling comfortable with the rich call of life and vitality, many managers prefer to focus on structure issues and other objectively definable features of their organization, dismissing the human challenge and the humanly charged systems of their organization. Along with them, out goes the possibilities embedded in those systems.

Here we believe the systems concept as part of Systems Intelligence is quite useful for conceptualizing leadership practices. It points to something man-made, and therefore manageable; and at the same time, to something that is generative, productive and active beyond our individual decisions. "A system" refers to something that can and should be approached in terms of the possibility to change that system, by intervening with the interconnections within that system and by creating leverage, and at the same time the system seems to have a will and direction of its own.

Invitation to Human Growth

A key point of Systems Intelligence is its positive emphasis. The perspective highlights what we do right with the idea that we could do more of what's right. The idea is to connect more actively, sensitively and lively with a competence we possess to start with. We are already Systems Intelligent: the point is to be more so.³²

The primary idea of the Systems Intelligence approach is therefore not to highlight people's ignorance of (say) various complexities of the world, but rather to invite people to acknowledge the tremendous skills they have in coping with complexities. The idea is to create further momentum with that superb competence we have.

"In a system, the chains of consequences extend over time and many areas", Robert Jervis writes in his study *System Effects* (Jervis 1997, p. 10). Jervis investigates systems phenomena in political life from a systems perspective and characteristically for a systems theorist, emphasizes *interconnections* as the focus of attention as opposed to individual parts or separate entities. "When the interconnections are dense, it may be difficult to trace the impact of any change even after the fact, let alone predict it ahead of time making the system complex and hard to control." (p. 17)

Systemicity is about interconnections, and about the complexity that they multiply, often exponentially. "Many crucial effects are delayed and indirect; the relations between two actors often are determined by each one's relations with others; interactions are central and cannot be understood by additive operations; many outcomes are unintended; regulation is difficult." (Jervis 1997, p. 28).

"aliveness" and even "transcendence" have recently gained new respectability in academic studies as a result of the emergence of what could be called the science of the positive (positive psychology, positive organizational scholarship). We welcome this development which we find to support our own approach (see Seligman and Csikszentmihalyi 2000; Cameron et al. 2003; Snyder and Lopez 2002; and Keys and Haidt 2003).

³² Notice the active overtones of these descriptions. As opposed to wondering and moaning the complexity of one's environment or the world, the Systems Intelligence perspective wants to engage in that complexity with the idea to act intelligently in it. The point is not to describe in so many words just how complex the complexities are but to move along with them and even as they emerge. From this perspective, Systems Intelligence amounts to accepting the life as a complexity (in any sense of the word complexity theory might assign to it) but at the same time assuming that this feature of the human condition can be lived with intelligently.

How to live with such unpredictable and uncontrollable environment? With their Systems Intelligence, humans have been able to do it for thousands of years.

Systems Intelligence takes interconnections not as a threat but as a *source of possibility*. Interconnectivity is not primarily a matter of uncontrollable unpredictability but a source of far-reaching potentiality for improvements, renewal and upswing. For a Systems Intelligent leader, systems create abundance, amount to abundance, and are themselves an abundance. Systems are the door to a potentially boundless space of possibilities.

Because of the fact that “chains of consequence extend over time and many areas”, the Systems Intelligent leader will place emphasis even on microinterventions. By changing something small, the Systems Intelligent leader is looking for something big, through the effects and resonance brought about by that initial intervention.

In similar vein, even contingencies have a play. Why overlook a possibility that arises out of a chance or a coincidence? There is an element of opportunism in Systems Intelligence, in the desire to make most of the specifics of the living presence. Pete Best might have been a better drummer than Ringo Starr but Ringo Starr was an optimal drummer for the Beatles, giving rise to a system of spectacular creativity. It is the possibility of such emerging systems of creativity and co-creativity that is part of the human condition, the Systems Intelligence perspective maintains.³³

Insights from child development research strongly support the perspective we are here advocating. Writing about the “very complex anticipatory system” between an infant and a mother, Jerome Bruner, one of the leading scholars in the field, points out that “*early infant action takes place in constrained, familiar situations and shows a surprisingly high degree of order and ‘systematicity.’*” (Bruner 1982, p. 28, italics in the original). There is in infants “readiness to find or invent systematic ways of dealing with social requirements and linguistic forms”.

There are several important conclusions that follow from this, Bruner stresses.

“The first is obvious, though I do not recall ever having encountered the point. It is that from the start, the child becomes readily attuned to ‘making a lot out of a little’ by combination.” And, further, another key conclusion Bruner makes “*about the nature of infant cognitive endowment is that its systematic character is surprisingly abstract.*” (p. 29, italics in the original)

“To say that infants are also ‘social’ is to be banal. They are geared to respond to the human voice, to the human face, to human action and gesture.” (ibid., p. 26) “Infants are, in a word, tuned to enter the world of human action.” (ibid., p. 27)

It is that “world of human action” and “endowment that is systematic in character” that Systems Intelligence wants to highlight and re-introduce to the focal point of leadership. Systems Intelligent leadership amounts to making use of the core of our humanity, as described by Bruner. It highlights our human capacity to connect and to grow together with one another and with the environment, the capacity to “make a lot out of a little” that Systems Intelligence is based upon.

The resulting call for human growth, self-renewal and emergence is existential in nature. It concerns the very foundations of our humanity. It concerns primarily our being-in-the-world rather than descriptions of that being. Indeed we believe language and prevailing modes of

³³ Thus a Systems Intelligent leader is likely to welcome “serendipity”. Regarding that concept, see Merton and Barber (2004). Notice in particular Merton’s charming “Afterword” to that stimulating study.

discourse can be quite misleading here. As Bateson once observed, “Language commonly stresses only one side of any interaction” (Bateson 1979/2002, p. 56) and also that “Human languages – especially perhaps those of the West – are peculiar in giving undue emphasis to Separate Things. The emphasis is not upon ‘relations between’ but upon the ends of relationship” (Bateson and Bateson 1987/2005, p. 161). In as much as Bateson is right, prevailing modes of discourse makes what is natural for Systems Intelligence seem strange, contradictory and even perverse when you start to talk about it.

But talk is not what’s critical here. Action is.

Tolstoy suggests in *War and Peace* that “in warfare the strength of an army is the product of its mass and of something else, some unknown factor X.”

“Military science, finding in history innumerable instances of the size of an army not coinciding with its strength, and of small detachments defeating larger ones, vaguely admits the existence of this ‘unknown’ and tries to discover it – now in some geometrical disposition of the troops, now in superiority of weapons, or (more frequently) in the genius of the commanders. But none of these hypothetical identifications of the unknown factor yields results which accord with historical facts.” (Tolstoy 1869/1982, p. 1223–4)

People are the key here – people and the in-between, people as connected through a shared experience that tune them up and charge them, in a real-time context and at a moment of urgency, working as a system which because of some unnamed aspect X of that system makes it more effective and flourishing than another, technically better system.

“This X is the spirit of the army”, Tolstoy writes. An army with a spirit works as a system better than an army that does not have the spirit.

But “spirit,” like “vitality,” “life,” or “human (mental) growth” will not yield to cut-and-dry concretism or rationally pleasing abstractionism. Whatever “spirit” is, it cannot be objectified or rectified to a mere “thing” or an “object”. To approach it, something more than an objectifying discourse is needed. More is called for than the ability to analyze, control and command.

Systems Intelligence wants to return the focus of leadership studies back to human sensitivities and to a holistic encountering of the tasks at hand. In so doing, it highlights a leader’s abilities to sense connections and what-is-only-emerging, it emphasizes her capabilities to sharing experiences, it draws from intuitions³⁴ and emotions and more generally from the wide array of capabilities to stay alert for the present moment and its unique possibilities.

Whatever factor X is, the Systems Intelligence leader wants to ride with it.

The Focus Points of a Systems Intelligent Leader

In earlier papers, we called attention a key form of human interaction particularly relevant to appreciate in connection of Systems Intelligence (Saarinen and Hämäläinen 2004, Hämäläinen and Saarinen 2006). The pattern in question features prominently in paradoxical situations such as

³⁴ For an in-depth academic study of “intuition and its role in managerial decision making”, see Dane and Pratt (2007).

- (1) Most managers want to give support to their team member, and most team members would want to get support from their managers, yet support does not result;
- (2) Most companies want to give customers excellent service, most customers would want to get excellent service, yet excellent service does not result;
- (3) Most teachers would want to give their students excellent teaching that helps their students to flourish, most students would want to get excellent teaching that helps them to flourish, yet excellent teaching or flourishing does not result;
- (4) Most husbands would want to have beautiful intimacy with their wives, most wives would want to have beautiful intimacy with their husbands, yet beautiful intimacy does not result;
- (5) Most people would prefer energy-giving meetings. Most people have energy to give. But most meetings eat away your energy.

A change-oriented person facing situations such as these might take action via the *technical and objective dimension* and conceptualize the malfunction to result from a fault in the thing-like features of the system in question. The manager might believe that once we get a new product line in place, or a new supplier for spare parts, the current problems will be resolved. Or, she might conclude that a subordinate is the issue. Some specific person is not up to the standards. "If only I was married with so-and-so, as opposed to such-and-such, beautiful intimacy would result for decades to come." An obvious approach to a problem is via a cause-and-effect model that identifies bottlenecks and takes the necessary actions by removing the identifiable obstacles. A remedy and a fix are possible, and the effect is sought by a manipulative intervention in a manner that perhaps can be quantifiably evaluated already in advance.

Clearly, in order to make a system work, often actions following this kind of classical logic of linear causality are called for. Objectively identifiable obstacles for the functioning of a system should be targeted and changed, and that is the duty of the leader. This is the first focus of a systems intelligent leader – any leader.

Unfortunately, many stop here. They do not see to the systemic nature of many of the issues that result in paradoxes such as (1)–(5). They do not see to the mechanisms that give rise to phenomena such as

- I. Non-support-generating systems among managers and team members
- II. Lousy-service-generating systems
- III. Lousy-teaching-with-little-growth-impact-generating teaching and learning systems
- IV. Lousy-intimacy-with-your-spouse-generating systems of interaction in a marriage
- V. Energy-loss meeting systems.

A Systems Intelligent Leader wants to do better. She wants to push through what we have termed *Systems of Holding Back in Return and in Advance*.³⁵ Not blaming technical problems, not blaming

³⁵ Saarinen and Hämäläinen (2004), Hämäläinen and Saarinen (2006). The concept refers to mutually aggregating spirals which lead people to hold back contributions they could make because others hold back contributions they could make. We believe such systems are fundamental to human interaction – indeed, our conviction is that human interaction has a tendency to slide into systems of holding back unless conscious effort is launched to counter this tendency. A negative dance of holding back will prevail unless it is countered time and again. Our concept bears resemblance to what Bateson called "complementary schismogenesis" (Bateson 1936/1999, 1972/2000). (An application of the Batesonian concept to discourse analysis is offered by Tannen 1984/2005 and 2001.. For an early discussion of some of the themes involved,

some particular individuals, not blaming external circumstances, not adopting a blaming mode in general, she seeks to intervene in the system with her cognitive and non-cognitive capacities so as to make a difference. She wants to change the system that moulds people to behaviours that currently amount to the undesired, languishing outcome.

Indeed, she wants the emergence of a growth momentum. Instead of having a system of microbehaviours where people play down each other towards decreased vitality, she wants microbehaviours of growth and encouragement towards mutually created flourishing.

To the extent there are microbehaviours of holding back and a phenomenon of holding back giving rise to Systems of Holding Back, there is also the opposite possibility. And indeed, while a company culture (say) is a powerful influence on people's behaviours, in the dimension of microbehaviours, the individual still has a choice. A pattern can be challenged. In a stingily credit given organization, someone can still give credit. Arrogance of a colleague need not yield an arrogant reply back even in an arrogant company. A person coming late to meeting could have come on time. A person looking bored could look interested. Microbehaviours are a reflection of our humanity and typically do not require expertise or analytical explicit knowledge in order to get embodied. But as such, they do require choice.

Microbehaviours of encouragement, support and respect are always there as a possibility, and so is the growth of a *phenomenon* of them. And as a result, there is also the possibility of the phenomenon of mutually reinforcing loops regarding those positive affects and towards the upscale. The possibility of systems such as *Systems of Mutual Support, Encouragement, Excitement, Energy, and Uplift* are a fundament of the human condition. The Systems Intelligent leader wants to join forces with such mechanisms of the human in-between.

The second focus for a Systems Intelligent Leader: *Creating Interventions with respect to Systems of Holding Back in the name of life-increasing and vitalizing possibilities.*

Here we believe the Systems Intelligence perspective represents a major step forward beyond object-categorical, external impact seeking leadership thinking. Systems Intelligent Interventionism most certainly does acknowledge the possibility of major changes through conventional managerial actions such as organizational restructuring, but points to an equally significant realm of change through the human systemic dimension which is hiding in people's microbehaviours. It is that rich field of *held back contributions* and potentially *mutually reinforcing positive loops* that Systems Intelligent Interventionism particularly seeks to highlight and make use of.³⁶

see Watzlawick, Bavelas, and Jackson 1967.) It seems to us the phenomenon Bateson approached with his somewhat awkward concept has not received the attention it deserves. The phenomenon of "creating divisions" (schismogenesis), the arousal of negative loops of mutual influence, and life-decreasing spirals are a field that calls for further research in the context of everyday experience. The enormous literature of the related phenomenon of the "prisoners' dilemma" (see e.g. Axelrod 1984) certainly opens valuable perspectives academically but does not hit to the core of the matter in terms of leading to action. In more therapeutic and consultancy oriented writing negative loops are often discussed in terms of metaphors such as "dance". An illustrative and useful example is Lerner (1985).

³⁶ An important way forward is indicated by Fredrickson's studies on what she calls "the broaden-and-build theory" of positive emotions. "The broaden-and-build theory suggests that positive emotions broaden people's modes of thinking and action, which over time builds their enduring personal and social resources." Her well-researched and empirically based theory "lay groundwork for the hypothesis that

Hence the focus upon microbehaviours that reveal Systems of Holding Back; hence the desire to hit the Systems of Holding Back, hence the desire to turn the patterns of microbehaviours towards hope, encouragement and flourishing.

Systems Intelligent Interventionism often works like magic. On the face of, little might be taking place. But internally a huge impact could be on the way. Perhaps something touching took place, something that moved people and made them think, feel, connect with one another in a new and hope-triggering ways.³⁷

Consider the invitation of Mr Gregory, a low-ranking prison officer, to the Presidential Inauguration of Nelson Mandela.³⁸ Gregory had been Mandela's ward for more than twenty years in the prison on Rodden Island. The striking invitation was a touching gesture from Mandela, a signal that stated: we shall focus on the future, as opposed to the horrendous past.³⁹ Or similarly, consider the thousands of small encounters of ordinary people in the meetings initiated by Desmond Tutu in connection of South Africa's Truth and Reconciliation Committee. A torturer would face the people he had tortured, in order to hear their testimonials, and in order to hear the truth, and perhaps receiving forgiveness for what was unforgivable.

Or, as a third example, consider the microfinance loans that have revolutionized poor women's lives in Bangladesh or Africa by bringing them to money economy and encouraging many to develop their entrepreneurial skills and stand up for their rights and self-respect. In many cases the results are stunningly far-reaching. As Helen Epstein and Julia Kim recently reported, "new research from South Africa suggests that it may be possible to dramatically change the status of women in a very short time, even in the poorest, most troubled communities, at a relatively low cost." (Epstein and Kim 2007, p. 39) They refer to the fact that in many cases "microfinance programs have improved many women's lives. Studies have suggested that microloan recipients tend to have fewer children than other women, and that the children they have are healthier." With some additional interventions the microloan programs have produced encouraging results by way of reducing domestic violence against women and even the spread of HIV in their community.

positive emotions generate 'upward spirals' toward optimal functioning and enhanced emotional well-being". (Fredrickson 2003, p. 163 and 169)

³⁷ Systems Intelligent Interventionism is a field of study which is here called for. Contributions to that area will benefit from research of interventions in therapy-related contexts and from research on what Luthans, Youssef, and Avolio (2007) call "microintervention studies". But as is suggested by the rich array of examples we use in this paper, the study of Systems Intelligent Interventionism should not be restricted to any specific domain of life. Many of the key mechanisms are likely to be generic in nature and will ultimately ride on the functionings of the inner systems of us humans. Thus studies on Systems Intelligent Interventionism will benefit from investigations into personal coaching and sports coaching, dialogue, personal histories of influential individuals, the art of conducting, actor-directing, facilitating, psychodrama, and parenting, to name a few examples.

³⁸ Barry O'Neill discusses this case in his *Honors, Symbols and War* (1999/2001, p. 25). O'Neill's stimulating and original book is highly relevant for the perspectives we develop in this paper.

³⁹ In his autobiography Nelson Mandela devotes a touching paragraph to Officer Gregory. When describing the moments of his release from the Rodden Island prison, Mandela writes: "Warrant Officer James Gregory was there at the house, and I embraced him warmly. In the years that he had looked after me from Pollsmoor through Victor Verster, we had never discussed politics, but our bond was an unspoken one and I would miss his soothing presence. Men like Swart, Gregory, and Warrant Officer Brand reinforced my belief in the essential humanity even of those who kept me behind bars for the previous twenty-seven and half years." (Mandela 1994, p. 562)

It is the emergence of a better life one is here approaching with encouragement and hope. And the logic is: small input, big output, often in matters seemingly unrelated to what was the original initiating input.

People are the key here, as creatures that have feelings, emotions, instincts for hope and encouragement, with an inner capacity for sensing the meaningful as a personal force of uplift, and with an ability to connect with one another, with personal growth and with a better future. "There is a growing recognition that the key to improving the health of the world's poor", Epstein and Kim write, may lie "in encouraging poor people to develop the collective will and take the social action necessary to enable them to protect their own health." As people move, so do often mountains.

This perspective is strongly reinforced in the story of Muhammad Yunus and his Grameen Bank that initiated the microloan concept. As a young economics professor in his native Bangladesh, Yunus describes a decisive experience he encountered in a near-by village to which he had gone in order to explore the functionings of poverty from what he called "the worm's eye view". Yunus approached cautiously a woman in her poor household. "She was squatting on the dirt of her veranda under the low rotten thatched roof of her house, totally absorbed in her work. She was holding the half-finished stool between her knees while plaiting the strands of bamboo cane." (Yunus 2003, p. 6)

Sufia Bagum was her name, and she was 21 years of age. "Sufia Bagum was illiterate but she was not without useful skills. The very fact that she was alive, squatting in front of me, working, breathing, struggling on in her quiet way despite such adverse conditions proved beyond a doubt that she was endowed with a useful skill – the skill of survival."

She was preparing a bamboo stool for her survival. But she could not buy the material at the equivalent of 22 US cents because she did not have the equivalent of 22 US cents. Thus she was trapped into a vicious circle that forced her to sell back the stool to the trader of the bamboo at an unfairly low price leaving her only the equivalent of 2 US cents for the day's work. She suffered because of the lack of 22 US cents.

"I had never heard of anyone suffering for the lack of 22 US cents", Yunus writes. "It seemed impossible to me, preposterous."

Yunus' insight was: "she suffered because the cost of the bamboo was 5 *taka* and she didn't have the necessary cash. Her life was miserable because she could survive only in that tight cycle – borrowing from the trader and selling back to him. She could not break free of that circle. Put in those terms it was simple. All I had to do was to lend her 5 *taka*."

There were 42 women in a similar situation in the village. Yunus gave loans to each of them, amounting to the equivalent of 27 US dollars. He created a new system through an intervention of 27 USD. The total number of borrowers now is 6.91 million, 97% of them women.

Throughout his autobiography, Yunus emphasizes the potential of each human being. "I firmly believe that all human beings have an innate skill ... So rather than waste our time teaching them new skills, we decided to make maximum use of their existing skills. Giving the poor access to credit allows them immediately to put into practice the skills they already know – to weave, husk rice paddy, raise cows, peddle a rickshaw. And the cash they earn is then a tool, a key that unlocks a host of other abilities, a key to explore one's potential." (Yunus 2003, p. 225)

Yunus' microloans initiative is a Systems Intelligence superstory. Not only is the system he created intelligent, it also activates the systems intelligence in the poor people it involves. By his systems intelligent intervention Yunus changed a system a person was forced to maintain up until then – a system that forced her to hold back more productive forms of action she was capable of.

Like with our previous examples on Lincoln's cabinet and Martin Luther King's "I have a dream" -speech we once again beg the reader to pay attention to the *dramatically successful* as the benchmark for what is possible, and what should be approached as paradigmatic as we conceptualize our human potentials in the dimensions of action, collaboration and systemic change. The intelligence at work in these cases, we should have more of and develop to a mastery. This is the call of Systems Intelligence action and Systems Intelligent Leadership.

And nothing in what we suggest takes away the necessity to analyze, to conceptualize in objective terms, to measure, to know and to engineer, to command and control – too the extent we can do it, and to the extent it is beneficial in a given context to do it. The leader's natural focus point, along with the points of intervention, cultivation and care, is the organization as a machine-like system, as a whole that can be measured, as a process that can be controlled. The leader's metalevel Systems Intelligence amounts to also choosing intelligently the parameters that define the most relevant aspects of the system in the given specific time in history.

And once again we are reminded of Lincoln:

"He possessed an acute understanding of the sources of power inherent in the presidency, an unparalleled ability to keep his governing coalition intact, a touch-minded appreciation of the need to protect his presidential prerogatives, and a masterful sense of timing." (Goodwin 2005, p. xvii).

Leadership is a comprehensive activity, and the challenge is to make the system ride towards excellence and growth with respect to the situation and with respect to the ongoing change.

Big and small, structural and human, Systems Intelligence has it all. Leadership is Systems Intelligence, but possible systems are a myriad. There is no logical prefixed borderline where to stop. Systems can and will get redefined and redrawn, and it is part of the job of the leader to decide which ones to take as primary and when. Systems Intelligence of a leader calls for the opening up of sensitivities and for her internal and external dialogue, for analysis and for intuitions, for the cognitive and for the emotional, social and the in-between.

Systems Intelligence as a Driver of Hope

Writing in 2003, Fred Luthans and Bruce Avolio state that "to date hope has had little application to the workplace or the leadership field." (Luthans and Avolio 2003, p. 253). Systems Intelligent leadership approach wants to change that.

As people are powered from within, astonishing results will emerge, outcomes one could not have imagined when witnessing those same people held back and holding back.

What keeps people from getting fully connected with their inner potentialities and energies? In many cases an institutionalized or exterior force of coercion might be in place, a powerbase that backs up an alienating system that lessens life's possibilities and creates a structure that holds back an agent from realizing her dreams and potentialities. History is full of such systems of submissive nature. But in modern democracies more often than not, the key obstacle is not an

objectively definable system that limits us from outside but systems that we have created ourselves and maintain ourselves from within and in-between.

What you believe is the system, is the system for you. But the system you have chosen and others have chosen and indeed everyone seems to endorse, might not serve anyone. It might do ill-justice to our aspirations and growth potentialities.

A key aspect of systems as we conceive them is that *systems can be changed*. Systems are not prefixed, systems are not absolute – systems are not part of the metaphysical constitution of an external reality existing independently of people’s beliefs, frames of reference, modes of thinking and ways of interacting with one another and the world. Systems are constituted by people in a dialogical relationship that at the same time constitute people. Systems are constructions but as constructions they can be changed.⁴⁰

Symbols and symbol systems are they key here. The chance is to change the perspective, the frame of reference, the rules of the game via the symbolic order, and open up the road to systemic change as a result. Of all the systems available to humans, the symbolic dimension is the most accessible when reaching out to the emergence of life-enhancing systems, and way out from systems of holding back.

Another key dimension of Systems Intelligence Leadership is thus introduced: symbolic interventionism and systems intelligence in the realm of symbols.⁴¹

A Yunus’ microloan might well bring concrete help and indeed hope to a poor woman’s reality. But perhaps even more than that, the microloan might bring her new meaning via powerful and living *symbolism of hope*. The Systems Intelligence perspective holds that people are more tuned to such immaterial possibilities than often is recognized.

Key forms of systems intelligent interventions through the symbolic dimension are likely to include ones that touch upon the categories of hope, freedom, my-own-significance, connectivity, respect and love – basic themes of life that have been touched upon, narrated, elaborated, investigated and admired since the dawn of civilization. Why should they not be relevant in the systems environment of modern work-life and everyday?

A chief reason is the tendency to perceive organizations and work environments in terms of objective categories. When an organization is conceived as an objectively definable entity, it is easier to handle, conceptualize, control and manipulate, all welcome results for many leaders, but key features of humanity are lost along with key features of the organization as a living system. The symbolic, the emotional, the experiential and the subjectively meaningful are excluded from what seems like primary or even relevant.

Yet categories such as hope and respect command a towering position within people’s internal systems and in people’s lives. The Systems Intelligent Leader wants to stay in tune with that

⁴⁰ We shall not go in detail to questions of constructivism. Major inspirations for us in this area include Berger and Luckmann (1966) and Shotter (1993).

⁴¹ The parallels to brief therapy are particularly eminent here (see e.g. Watzlawick 1978; de Shazer 1988 and 1994). Notice particularly de Shazer (1991) which uses the systems metaphor powerfully. See also Berg and Dolan (2001). Shotter’s (1993) “rhetorical-responsive version of social constructivism” is a promising perspective to use when articulating some of the key aspects of Systems Intelligence in the symbolic dimension.

fundamental realm of her systemic context. She is leading a complex whole of objective systems but also more than that. There is a dimension of her leadership that deals with the organization as systems-that-are-more-than-objects. That is the systems environment she wants to work better, to produce results, and operate in harmony with people's desire to flourish with others.

"The mind's eye is both a system of selective attention and a system of interpretation and is one of the most powerful mechanisms in our brain", George Kohlrieser writes in his *Hostage at the Table* (Kohlrieser 2006, p. 21). Kohlrieser is a former hostage negotiator who has been personally taken hostage four times.

"The goal is to maintain a sense of control through the mindsets we have and the words we use. This is how negotiators succeed." (p. 8) "Refocusing the mind's eye of the hostage taker, from the negative to the positive, becomes the primary goal." (p. 24) In order for this to happen, the negotiator will have to establish a *bond* with the hostage taker. "Bonding has the potential to produce tremendous energy." (p. 46)

In order for a bond to emerge, in order for a negotiation situation to take a totally new turn, not that much need to happen in objective terms. As Kohlrieser points out, very often just a few words might be enough. "The mind's eye", activated from a new perspective by the negotiator's well-chosen words, might bring about the emergence of attachment and bond between the hostage taker and the negotiator, resulting in release.

Kohlrieser's cases of hostage negotiation breakthroughs are elaborations of the theme of systems interventions through the thematics of a highly charged and metaphorically suggestive environment. Working from the perspective of hope, seeking to create an attachment-carrying *in-between*, the negotiator uses language and her own human credibility in order to create a life-increasing system from the scarce ingredients of the hostage situation. She wants to turn the tide; she wants to trigger effects that will feed upon themselves and produce an outcome that in the first place seems impossible.

For a Systems Intelligent leader, people's internal systems of interpretation (the "mind's eye" in Kohlrieser) as well as the human systems of bonding are key resources of leadership. They are potential carriers of hope, freedom, care, excitement, respect, fresh solutions, and productivity, and of the upscale aspects of life at large. A Systems Intelligence Leader wants to use all that. She does not want to become hostage to a reduced and simplified object-based conception of her work or her leadership. There is more to people and more to organizations than meets the eye – more that is good.

What seems like the system may hide some of the best in people. Consider the story from St. John, striking in the street-credible ingenuity, if we may say so, it addresses to Jesus. "'The teachers of the law and the Pharisees' brought in to Jesus a woman caught in adultery. 'Teacher, this woman was caught in the act of adultery. In the Law Moses commanded us to stone such women. Now what do you say?'"

The evangelist notes: "They were using this question as a trap, in order to have a basis for accusing him."

But as we recall, Jesus bent down, creating a change in the rhythm of the situation. He prepared the ground for a reframing of the set-up, for the emergence of a more generous and life-appreciating system. As the accusers kept on questioning him, the masterful systems intelligent countermove of Jesus was to say, "If any one of you is without sin, let him be the first to throw a stone at her." (John 8: 1-7) As will be recalled, this decided the case. The accusers were stripped

from their accusing advocate mode and found themselves in inquiry mode that opened the door to a bond with the accused woman. A more appreciative and forgiving system emerged, backed up by a shared experience of human connectivity and non-arrogance coming to life in the living presence. Having gotten released from the hostage system of accuse and disgust the people that came to Jesus touched upon their more generous selves, felt their own guilt and left.

This is systems intelligent interventionism; this is Systems Intelligence at the service of hope.

Just Do It

Infants are remarkable in their “original endowments” (Bruner). “You are a visual virtuoso” (Hoffman). Our abilities to sense one another, to read each others intentions and minds, our innate capabilities for intersubjectivity and abilities to interact with the world without explicit knowledge and through preverbal and unconscious modes of sensing the relevant – these are magnificent skills, and as Daniel Stern emphasizes it is likely “that the majority of all we know about how to be with others resides in implicit knowing and will remain there” (Stern 2004, p. 115). Should we start to appreciate our innate contextual systems abilities as a form of genius, and start to cultivate them with a broad approach, rather than narrow them down on the basis of a restricted object-based outlook? Systems Intelligence suggests the former.

You already do it. You already create leverage, emergence, momentums and jumps forward. You meet a person, and effortlessly a successful shakings of hands emerges. Feelings in you both. Perhaps a raise in hope, meaning and purpose. All this perhaps because you sensed the other’s sincerity and authenticity and returned a smile. You adjusted your speech to the other in split seconds, your discourse started to take the shape of communality right from the start. How did you do it, how did you create that constructive opening, thus a triggering of effects, that elevation to a higher level? Clearly humans are masters in creating effects on the fly if they choose to. And the call is to do more of that, more in tune with our deepest aspirations.

Leadership is a drive towards improvements in the company of others. It amounts to action within systems and the cultivation of systems, in order to create leverage and spirals towards the upscale. The best option is to face the living presence with an idea, with a purpose, with values that matter, and with trust to the human potential – with leadership that taps on the miraculous in-between dimension in us human beings: ability to create emergence.

That is the essence of Systems Intelligent leadership.

References

- ACKOFF R.L. 2006. Why few organizations adopt systems thinking. *Systems Research and Behavioral Science*, vol. 23, no. 5, pp. 705–708.
- ALBRECHT KARL. 2006. *Social Intelligence*. Jossey-Bass.
- ALEXANDER CHRISTOPHER. 2002. *The Nature of Order. Book One: The Phenomenon of Life*. The Center for Environmental Structure.
- ALEXANDER CHRISTOPHER. 2002. *The Nature of Order. Book Two: The Process of Creating Life*. The Center for Environmental Structure.
- ALEXANDER CHRISTOPHER. 2005. *The Nature of Order. Book Three: A Vision of a Living World*. The Center for Environmental Structure.

- ALEXANDER CHRISTOPHER. 2004. *The Nature of Order. Book Four: The Luminous Ground*. The Center for Environmental Structure.
- AMBROSE STEPHEN E. 1994/1995. *D-Day June 6, 1944: The Climactic Battle of World War II*. Touchstone books.
- ALY GÖTZ AND SUSANNE HEIM. 2002. *Architects of Annihilation*. Princeton University Press.
- ANTONAKIS JOHN, ANNA T. CIANCIOLO, AND ROBERT J. STENBERG, EDS. 2004. *The Nature of Leadership*. Sage Publications.
- AXELROD ROBERT. 1984. *The Evolution of Co-Operation*. Penguin Books.
- BASS BERNARD M. 1990. *Bass & Stogdill's Handbook of Leadership*. Third edition. The Free Press.
- BATESON GREGORY. 1935/1999. *Naven*. Stanford University Press.
- BATESON GREGORY. 1972/2000. *Steps to an Ecology of Mind*. The University of Chicago Press.
- BATESON GREGORY. 1979/2002. *Mind and Nature*. Hampton Press.
- BATESON GREGORY AND MARY CATHERINE BATESON. 1987/2005. *Angels Fear*. Hampton Press.
- BERG INSOO KIM AND YVONNE DOLAN. 2001. *Tales of Solutions*. W.W. Norton.
- BERGER PETER L. AND THOMAS LUCKMANN. 1966. *The Social Construction of Reality*. Anchor.
- BERGQVIST J.T. 2005. Teollinen tulevaisuutemme: systeeminen hahmotus. (in Finnish) In *Systeemiäly 2005*, Raimo P. Hämäläinen and Esa Saarinen, eds., Systems Analysis Laboratory Research Reports B25, Helsinki University of Technology, pp. 23–30.
- BERGQVIST J.T. 2007. Superproductivity: The future of Finland. In *Systems Intelligence in Leadership and Everyday Life*, R.P. Hämäläinen and E. Saarinen, eds., Espoo: Systems Analysis Laboratory, Helsinki University of Technology, pp. 93–101.
- BROTHERS LESLIE. 1997/2001. *Friday's Footprint: How Society Shapes the Human Mind*. Oxford University Press.
- BRUCH HEIKE AND SUMANTRA GHOSHAL. 2004. *A Bias for Action: How Effective Managers Harness Their Willpower, Achieve Results, and Stop Wasting Time*. Harvard Business School Press.
- BRUNER JEROME. 1983/1985. *Child's Talk*. W.W. Norton.
- BUCHANAN DAVID AND ANDRZEJ HUCZYNSKI. 2004. *Organizational Behaviour: An Introductory Text*. Fifth edition. Pearson Education.
- CAMERON KIM S., JANE E. DUTTON, AND ROBERT E. QUINN, EDS. 2003. *Positive Organizational Scholarship: Foundations of a New Discipline*. Berrett-Koehler Publishers.
- CARSON CLAYBORNE. 1998. *The Autobiography of Martin Luther King, Jr.* Warner Books.
- CHRISTENSEN CLAYTON M. 1999/2003. *The Innovator's Dilemma*. HarperCollins.
- CHRISTENSEN CLAYTON M. AND MICHAEL E. RAYNOR. 2003. *The Innovator's Solution*. Harvard Business School Press.
- CHURCHMAN C. WEST. 1982. *Thought and Wisdom*. Intersystems Publications.
- COLLINS JIM. 2001. Level 5 leadership: The triumph of humility and fierce resolve. *Harvard Business Review*, 1 Jan 2001.
- COLLINS RANDALL. 2004. *Interaction Ritual Chains*. Princeton University Press.
- DANE ERIK AND MICHAEL G. PRATT. 2007. Exploring intuition and its role in managerial decision making. *Academy of Management Review*, vol. 32, no. 1, pp. 33–54.

- DEMING W. EDWARDS. 1982/1994. *Out of the Crisis*. Cambridge University Press.
- DRUCKER PETER F. 1989. *The New Realities*. Heineman Professional Publishing.
- EPSTEIN HELEN AND JULIA KIM. 2007. AIDS and the power of women. *New York Review of Books*, 15 February 2007.
- FLOOD ROBERT LOUIS. 1999. *Rethinking the Fifth Discipline: Learning Within the Unknowable*. Routledge.
- FREDRICKSON BARBARA L. 2003. Positive emotions and upward spirals in organizations. In *Positive Organizational Scholarship: Foundations of a New Discipline*, Kim S. Cameron, Jane E. Dutton, and Robert E. Quinn, eds., Berrett-Koehler Publishers.
- FREDRICKSON BARBARA L. AND M. LOSADA. 2005. Positive affect and the complex dynamics of human flourishing. *American Psychologist*, vol. 60, no. 7, pp. 678–686.
- GARDNER HOWARD. 1983. *Multiple Intelligences*. Bantam Books.
- GIULIANI RUDOLPH W. 2002. *Leadership*. Hyperion.
- GOLEMAN DANIEL. 2006. *Social Intelligence: The New Science of Human Relationships*. Hutchinson.
- GOODWIN DORIS KEARNS. 2005. *Team of Rivals: The Political Genius of Abraham Lincoln*. Simon & Schuster.
- GORDON STEWART. 2006. *Mastering the Art of Performance: A Primer for Musicians*. Oxford University Press.
- GOTTMAN JOHN M., JAMES D. MURRAY, CATHERINE C. SWANSON, REBECCA TYSON, AND KRISTIN R. SWANSON. 2002. *The Mathematics of Marriage: Dynamic Nonlinear Models*. Princeton University Press.
- GROVE ANDREW. 1999. *Only the Paranoids Survive: The Threat and Promise of Strategic Inflection Points*. Bantam Doubleday Dell Publishing Group.
- HAUSER THOMAS. 1991. *Muhammad Ali: His Life and Times*. Touchstone Books.
- HEIL GARY, WARREN BENNIS, AND DEBORAH C. STEPHENS. 2000. *Douglas McGregor, Revisited: Managing the Human Side of the Enterprise*. John Wiley & Sons.
- HOFFMAN DONALD D. 1998/2000. *Visual Intelligence: How We Create What We See*. W.W. Norton.
- HÄMÄLÄINEN RAIMO P. AND ESA SAARINEN. 2006. Systems intelligence: A key competence in human action and organizational life. *Reflections: The SoL Journal*, vol. 7, no. 4, pp. 17–28. Reprinted in *Systems Intelligence in Leadership and Everyday Life*, Raimo P. Hämmäläinen and Esa Saarinen, eds., 2007, Espoo: Systems Analysis Laboratory, Helsinki University of Technology.
- JACKSON MICHAEL C. 2000. *Systems Approaches to Management*. Kluwer Publications.
- JACKSON MICHAEL C. 2003. *Systems Thinking: Creative Holism for Managers*. John Wiley & Sons Ltd.
- JERVIS ROBERT. 1997. *System Effects: Complexity in Political and Social Life*. Princeton University Press.
- KAUREMAA JOUNI. 2007. Beyond paradoxes: Bifocal thinking and systems intelligent leadership. In *Systems Intelligence in Leadership and Everyday Life*, Raimo P. Hämmäläinen and Esa Saarinen, eds., Espoo: Systems Analysis Laboratory, Helsinki University of Technology, pp. 79–91.
- KEYS COREY L.M. AND JONATHAN HAIDT, EDS. 2003. *Flourishing: Positive Psychology and the Life Well-Lived*. American Psychological Association.
- KOHLRIESER GEORGE. 2006. *Hostage at the Table*. Jossey-Bass.

- LERNER HARRIET G. 1985. *The Dance of Anger*. Harper & Row.
- LOSADA MARCIAL AND EMILY HEAPHY. 2004. The role of positivity and connectivity in the performance of business teams. *American Behavioral Scientist*, vol. 47, no. 6, February 2004, pp. 740–765.
- LUOMA JUKKA. 2007. Systems Thinking in Complex Responsive Processes and Systems Intelligence. In *Systems Intelligence in Leadership and Everyday Life*, Raimo P. Hämäläinen and Esa Saarinen, eds., Espoo: Systems Analysis Laboratory, Helsinki University of Technology, pp. 281–294.
- LUOMA JUKKA, RAIMO P. HÄMÄLÄINEN, AND ESA SAARINEN. MANUSCRIPT 17 APRIL 2007. Perspectives on team dynamics: Meta learning and systems intelligence, available online at <http://www.sal.hut.fi/Publications/mluo07.pdf> (accessed 12 June 2007).
- LUTHANS FRED AND BRUCE AVOLIO. 2003. Authentic leadership development. In *Positive Organizational Scholarship: Foundations of a New Discipline*, Kim S. Cameron, Jane E. Dutton, and Robert E. Quinn, eds., Berrett-Koehler Publishers.
- LUTHANS FRED, CAROLYN M. YOUSSEF, AND BRUCE J. AVOLIO. 2007. *Psychological Capital*. Oxford University Press.
- LYUBOMIRSKY SONJA, LAURA KING, AND ED DIENER. 2005. The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, vol. 131, no. 6, pp. 803–855.
- O'NEILL BARRY. 1999. *Honor, Symbols and War*. The University of Michigan Press.
- MANDELA NELSON. 1994. *Long Walk to Freedom*. Little, Brown and Company.
- MASLOW ABRAHAM H. WITH DEBORAH C. STEPHENS AND GARY HEIL. 1998. *Maslow on Management*. John Wiley & Sons.
- MCGREGOR DOUGLAS. 1960/1987. *The Human Side of Enterprise*. Penguin Books.
- MERTON ROBERT K. AND ELINOR BARBER. 2004. *The Travels and Adventures of Serendipity: A Study in Sociological Semantics and the Sociology of Science*. Princeton University Press.
- MIDGLEY GERALD. 2000. *Systemic Intervention: Philosophy, Methodology, and Practice*. Kluwer Academic / Plenum Publishers.
- MIDGLEY GERALD, ED. 2003. *Systems Thinking*. Volume I: General Systems Theory, Cybernetics and Complexity; Volume II: Systems Theories and Modelling; Volume III: Second Order Cybernetics, Systemic Therapy and Soft Systems Thinking; Volume IV: Critical Systems Thinking and Systemic Perspectives on Ethics, Power and Pluralism. Sage.
- MILGRAM STANLEY. 1974/2004. *Obedience to Authority: An Experimental View*. Perennial Classics.
- OSHRY BARRY. 1995. *Seeing Systems*. Berrett-Koehler Publishers.
- OSHRY BARRY. 1999. *Leading Systems*. Berrett-Koehler Publishers.
- ROETHLISBERGER FRITZ J. 1977. *The Elusive Phenomena: An Autobiographical Account of My Work in the Field of Organizational Behavior at the Harvard Business School*. Harvard University Press.
- PHILLIPS DONALD T. 1997. *The Founding Fathers on Leadership: Classic Teamwork in Changing Times*. Time Warner.
- RHODES RICHARD. 2002. *Masters of Death: the SS-Einsatzgruppen and the Invention of the Holocaust*. Random House.
- ROCK DAVID AND JEFFREY SCHWARTZ. 2006. The neuroscience of leadership. *Strategy+Business*, no. 43, summer 2006.

- ROGERS CARL R. 1961/1995. *On Becoming a Person: A Therapist's View of Psychotherapy*. Mariner Books.
- ROGERS CARL R. 1980. *A Way of Being*. Houghton Mifflin Company.
- SAARINEN ESA. AND RAIMO P. HÄMÄLÄINEN. 2004. Systems intelligence: Connecting engineering thinking with human sensitivity. In *Systems Intelligence: Discovering a Hidden Competence in Human Action and Organisational Life*, Raimo P. Hämäläinen and Esa Saarinen, eds., Systems Analysis Laboratory Research Reports A88, Helsinki University of Technology, pp. 9–37. Reprinted in *Systems Intelligence in Leadership and Everyday Life*, Raimo P. Hämäläinen and Esa Saarinen, eds., 2007, Systems Analysis Laboratory, Helsinki University of Technology.
- SALOVEY PETER, JOHN D. MAYER, AND DAVID CARUSO. 2002. The positive psychology of emotional intelligence. In *Handbook of Positive Psychology*, Snyder C.R. and Shane J. Lopez, eds., Oxford University Press.
- SENGE PETER M. 1990. *The Fifth Discipline: The Art and Practice of the Learning Organization*. Doubleday.
- SENGE PETER M., ART KLEINER, CHARLOTTE ROBERTS, RICHARD B. ROSS, AND BRYAN J. SMITH. 1994. *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization*. Doubleday/Currency.
- SELIGMAN JEREMY. 2006. Building a systems thinking culture at Ford Motor Company. *Reflections: The SoL Journal*, vol. 6, pp. 1–9.
- SELIGMAN MARTIN E.P. AND MIHALY CSIKSZENTMIHALYI. 2000. Positive psychology: An introduction. *American Psychologist*, vol. 55, no. 1, pp. 5–14.
- SHAZER STEVE DE. 1988. *Clues*. W.W. Norton.
- SHAZER STEVE DE. 1991. *Putting Difference to Work*. W.W. Norton.
- SHAZER STEVE DE. 1994. *Words Were Originally Magic*. W.W. Norton.
- SHOTTER JOHN. 1993. *Conversational Realities: Constructing Life Through Language*. Sage.
- SNYDER C.R. AND SHANE J. LOPEZ, EDS. 2002. *Handbook of Positive Psychology*. Oxford University Press.
- STACEY RALPH D. 2001. *Complex Responsive Processes in Organizations: Learning and Knowledge Creation*. Routledge.
- STACEY RALPH D. 2003. *Strategic Management and Organisational Dynamics: The Challenge of Complexity*. Fourth edition (first edition 1993). Prentice Hall.
- STACEY RALPH D., DOUGLAS GRIFFIN, AND PATRICIA SHAW. 2000. *Complexity and Management: Fad or a Radical Challenge to Systems Thinking?* London: Routledge.
- STERN DANIEL N. 2004. *The Present Moment in Psychotherapy and Everyday Life*. W.W. Norton.
- STERMAN JOHN D. 2000. *Business Dynamics: Systems Thinking and Modeling for a Complex World*. Inwin McGraw-Hill.
- STOGDILL RALPH M. 1950. Leadership, membership and organization. *Psychological Bulletin*, vol. 47, no.1.
- SUROWIECKI JAMES. 2004. *The Wisdom of the Crowds*. Achor Books.
- TANNEN DEBORAH. 1984/2005. *Conversational Style*. Oxford University Press.
- TANNEN DEBORAH. 2001/2003. *I Only Say This Because I Love You*. Virago Press.

- TEERIKANGAS SATU. 2006. *Silent Forces in Cross-Border Acquisitions: An Integrative Perspective on Post-Acquisition Integration*. Doctoral Dissertation, Helsinki University of Technology.
- TOLSTOY LEO. 1869/1982. *War and Peace*. trans. R. Edmonds. Penguin Classics.
- WATZLAWICK PAUL. 1978. *The Language of Change*. W.W. Norton.
- WATZLAWICK PAUL, JANET BEAVIN BAVELAS, AND DON D. JACKSON. 1967. *Pragmatics of Human Communication: A Study of Interactional Patterns, Pathologies, and Paradoxes*. W.W. Norton & Co.
- WELCH JACK WITH SUZY WELCH. 2005. *Winning*. HarperCollins.
- YUKL GARY. 2006. *Leadership in Organizations*. Sixth edition. Pearson/Prentice Hall.
- YUNUS MUHAMMAD WITH ALAN JOLIS. 1998/2003. *Banker to the Poor: Micro-Lending and the Battle Against World Poverty*. Aurum Press.

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