LiFT Leadership for Transition

Foundations and Resources of Integral Leadership

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Contents:

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LiFT Foundations & Resources Book – Chapter 2

Foundations and sources of integral leadership

So what is integral leadership? And how does it differ from more conventional, either traditional, modern or postmodern approaches to practicing, interpreting and studying leadership?

The following chapter will outline important sources of integral thinking and inspiration that the integral model of leadership is drawing on. Their common denominator is their striving to take a **meta-perspective that integrates different theoretical and epistemological perspectives in service of a broader, more comprehensive understanding of the phenomenon of leadership** in its respective contexts. Note that the aim of this overview is not to "canonize" one specific model or approach, but rather demonstrate the added value of an integrative, meta-theoretical heuristic as a way to understand and practice leadership integrally. One of the specific features of this is that it is essentially never closed, but always open for transformations towards even more encompassing, more comprehensive and more integrative views and perspectives.

As already mentioned in the introduction, integral leadership as understood here is an approach which can neither be accessed nor captured in a merely rational, and theoretical way. For the same reason, it is also difficult to fully and adequately communicate its essence via linear, textual representation. Notwithstanding, I will now do my best to explain some of the most important conceptual, theoretical and epistemological foundations of the integral model of leadership proposed. The following chapter first reconstructs the genesis of the term "integral" and frames it, giving some broader historical and epistemological, as well as discursive context, relating it to recent discussions in the field of leadership studies (subchapters 2.1-2.3). The next section starts with a conceptual clarification, demarcation and integration of the term "integral".

2.1 What is integral?*

Box 1*: Definitions of "integral"*

"*Integral*: the word means to integrate, to bring together, to join, to link, to embrace. Not in the sense of uniformity, and not in the sense of ironing out all of the wonderful differences, colors, zigs and zags of a rainbow-hued humanity, but in the sense of unity-in-diversity."

Ken Wilber: A Theory of Everything (2001)

"An *integral knowledge* then must be a knowledge of the truth of all sides of existence both separately and in the relation of each to all and the relation of all to the truth of the Spirit." *Sri Aurobindo*

"All religions, arts and sciences are branches of the same tree." *Albert Einstein*

The term "integral" as used here has numerous sources, some of which reach far back into the history of ideas. A glance onto its origins shows that philosophers and thinkers in many different countries have been looking for ways to bundle existing knowledge and to develop methods for gaining a meta-

* This sub-chapter is strongly indebted to a research paper on the history of the concept of "integral" by Markus Molz.

level quality of knowledge that was both resilient and as comprehensive as possible, in view of improving the lives of people in their environment. Among the **predecessors of integral thinking** we find educators, theologians and scientists, wisdom teachers as well as political revolutionaries. The ancestral gallery of integral thinking begins with Platonic and Aristotelian approaches and their reception by the Islamic-Arabic "madrasas" from 9th and 10th centuries on. It was then taken up by Catholic scholasticism with its newly founded universities in the European Middle Ages. It then reaches from Renaissance, Idealism, Humanism and the Natural Philosophy of the 18th and 19th centuries to modern socialist and religious-philosophical currents, up until contemporary thinkers in and outside academic science, out of which only a few can be cited here.

Our primary aim here is to elaborate the common denominator of the various uses of the term "integral" in order to outline a conceptual core meaning which an integral model of leadership can be based upon. At the same time, I wish to point out that this core meaning has sometimes also been promoted under other conceptual labels, which therefore shall also be briefly mentioned.

The Platonic-Aristotelian sources (described in more detail in Hampson, 2010) were first received by Islamic theologians and, beginning in the 11th and 12th centuries, also by medieval scholasticism. Their concept of (Greek) *catholicity*, or (Latin) *universitas*, was based on the neo-Aristotelian notion of a comprehensive access to the world and to knowledge. The way in which the term "integral" has been used by **Thomas Aquinas** sounds astonishingly fresh. In his Summa Theologiae (1265-73) he wrote:

"... it is evident that to know an object that comprises many things, without proper knowledge of each thing contained in it, is to know that thing confusedly. (…) We can have knowledge not only of the universal whole, which contains parts potentially, but also of the *integral whole*."

This refers to what is probably the most important, philosophical meaning of the term, namely the search for "truth" in the sense of the most comprehensive, both specific and universal knowledge about man, God and the world. In the integral thinking tradition, such a knowledge implies both a differentiated look at individual phenomena, and at their reciprocal (inter)relations with one another, and thus, the "big picture" (see the concept of the holon, below). Thus, the Italian scholar **Giovanni Pico della Mirandola** wrote in the middle of the sixteenth century:

"First, there is a unity of things by which every thing is one with itself, consists of itself, and is connected with itself. Secondly, there is a unity through which a creature is united with all others, and all parts of the world constitute a world" (1557).

For the same reason, the Indian wisdom teacher **Vijnanabhikshu** (1550-1600) considered it necessary to combine the three wisdom and practice schools of Advaita, Shankyja and yoga, all of which were influential in his time, in a synthesis called "Avibhagadvaita" ("indistinguishable non-dualism"). For in his opinion, neither of those schools contained the whole truth. For Vijnanabhikshu, the whole truth, and thus the key to a comprehensive and thus appropriate understanding was a synthesis of the truths of all schools. 400 years later, the sketch of the concept of "Integralism" developed by the great Russian cultural socologist **Pitirim Sorokin** sounds quite similar:

"The integral truth is not identical with any of the three forms of truth (truth of faith, of reason, and of the senses), but embraces all of them. This three-dimensional integral truth (…) is nearer to the absolute truth than any one-sided truth of one of these three forms. Each of those systems of truth separated from the rest becomes less valid or more fallacious. Each of these sources and systems of truth misleads us much more easily when it is isolated from, and unchecked by, the other sources and systems of truth then when it is united into one integral whole with the others" (1991, Social and Cultural Dynamics).

In 1957 Sorokin added: "Integralism (...) views the total reality as the infinite X of numberless qualities and quantities". So in addition to the goal of a comprehensive understanding of reality as a whole, the

essential insight that it is impossible to fully achieve its own claim is also inherent in integral thinking – and thus a basic conceptual openness for a further enhancement and completion of its own heuristics.

The well-known Indian wisdom teacher **Sri Aurobindo** (1872-1950), stated:

“It is evident that all this conflict of standards is a groping of the mental ignorance of man seeking to find its way and grasping different sides of the truth but unable by its want of integrality in knowledge to harmonize them together. It is only by finding that unifying and deeper principle of our being (to which oneness and integrality are native) in ourselves that we can solve the problem of our existence and with it the problem of the true way of individual and communal living” (1940, The Life Divine).

This quote highlights the practical wisdom of many integral thinkers, as well as their emphasis on the responsibility of the knowing subject. This is why similar ideas can be found primarily in moral philosophy, pedagogy and education, as well as in analyzes of political and economic events.

In pedagogical contexts, the term "integral" is used, on the one hand, in the sense of an education serving both the common good and an optimal development of each individual. On the other hand, integral educators usually emphasize the importance of combining and integrating different modes of knowledge in teaching and didactics, such as rational, sensual and the intuitive.

Box 2*: **Early integral thinkers in pedagogy and educational science:***

“Education should be (...) integral and not partial.”

Victor Considerant, Théorie de l’éducation naturelle et attractive (1844)

“L’éducation sera *intégrale* et individuelle, opposée à toute méthode exclusive opérant sur tous les élèves comme si leurs caractères étaient uniformes s’agit bien au contraire d’élever chacun à sa perfection propre. “ *Charles Fourier, Théorie des quatre mouvements (1808)*

“What has to be discovered and realized is democratic education and instruction (…) for all children of the people, without exception; that is the *integral* culture of the human spirit by the *integral* culture of the entire species.” *Jean-Baptiste Godin, Solutions sociales (1871)*

“This liberating and pacifying education is capable of forming healthy and balanced organizations, a less disunited generation … We designate it by the term *integral* which (means): the education which strives for the parallel and harmonic development of the entire being.“

Paul Robin, Manifeste de l’éducation intégrale (1893)

“… we advocate the éducation intégrale or complete education, which means the disappearance of the pernicious distinction between brain workers and manual workers.”

Piotr Kropotkin, Fields, factories and workshops (1898)

Sarvepalli Radakrishnan (1888-1975), for example, mentioned three categories of cognitive experience: "sense experience, discursive reasoning, intuitive apprehension". US consciousness researcher Ken Wilber describes these types of cognition as the "three lenses of knowledge" (1939).

The more politically oriented prophets of the concept of "integral" outlined here even go somewhat further and also include the category of the will, combined with the dimension of one’s own actions (Solovev: "feeling, thought and will"). And with a focus on the consequences of our personal life and behavior for others and the world as a whole, they also include the dimension of the meaning of human existence. In a general way, this is expressed, for example, in **Frank Lloyd Wrights**'s (1867-1959) plea for an authentic lifestyle: „Naturally should you want to really live in a way and in a place which is true

to this deeper thing in you, which you honor, the house you build to live in as a home should be (…) *integral* in every sense. Integral to site, to purpose, and to you. The house would then be a home in the best sense of the word" (Wrights, 1995).

Social philosophers such as **Jean Gebser** (1905-1973) and **Leo Gabriel** (1902-1987), influenced by the Second World War, suggested to fundamentally, structurally rethink political culture and beyond, which they explicitly described by the term "integral". Gabriel, for example, stated: "The ideological totality of the systems has resulted in war, destruction and misery of the world and will always cause this again and again. The logical deformation must be eliminated by the logical integration. Thus, the integral thought which we seek is the spiritual path to and the foundation of an order of peace" (Gabriel, 1949). At about the same time, Jean Gebser has formulated an outline of this integral thinking in his work "Ursprung und Gegenwart (The Ever-Present Origin)" (1949), which continues to be a major reference especially for integral analysis of cultural development. Gebser writes:

"What we experience today is not just a European crisis. It is also not a mere crisis of morality, economy, ideologies, politics, religion. It is a world crises and a human crises, as it has so far only occurred in times of change that were decisive and final for the life of the earth and the human race. The crisis of our time and of our world prepares a complete transformation process, which can only be described as a "global catastrophe" (...) a new constellation of planetary magnitude" (*my translation*).[1]

Gebser saw the latter for instance in "the increase in technical possibilities (...), which is in exact proportion to the diminution of the human sense of responsibility." He explained both of these as the result of a certain, culturally dominant cognitive structure, i.e. of a pattern of thinking, combined with corresponding value preferences, namely the mental rationality of the modern age. According to Gebser, it is characterized by the **formal-operational logic of modern science** and its "call for decisions", which takes one thing in the process of distinguishing and rejects the other. (...) No coexistence of truths and gods IS possible, the Either-Or (...) sweeps the heaven of gods empty. And in the process of 'enlightenment from self-caused immaturity', it will turn into a general iconoclasm, which, together with the pictures finally threatens to sweep away the soul of man" (1949, p. 6).

According to Gebser, this implies a "diminution of human responsibility", because the dualistic thinking of the mental age implies a narrowing of perspective, which, on the one hand, fights as unscientific more holistic perspectives and those, which admit contradictions and gray zones. On the other hand, it also loses sight of its own co-responsibility for the respective circumstances. In order to overcome this restricted perspective and the blind spots of perception connected to it, and thus also to overcome the contradictions of our mental conceptual schemata, Gebser argues that **it needs a wider, more self-reflexive and at the same time more integrative structure of thinking and cognition**. A thinking which makes "clear that the mental and the rational is not the ultimate answer", but that goes beyond the latter without discarding it. Gebser calls this thinking "**integral**". In his opinion, this kind of thinking is just as necessary for understanding physical reality as it is in the process of cultural development in a broader sense (1949, p. 9). For according to Gebser, "either we overcome the crisis, or it overcomes us. But only the one can overcome who has first overcome himself "(ibid., p. 16). Inasmuch Gebser's analysis is closely linked to the demand for a change of consciousness, more precisely, a differentiation of the structures of consciousness, he is one of the most important mentors of an integral social science.

[1] „Was wir heute erleben, ist nicht etwa eine nur europäische Krise. Sie ist auch nicht eine bloße Krise der Moral, der Wirtschaft, der Ideologien, der Politik, der Religion. Sie ist eine Weltkrise und Menschheitskrise, wie sie bisher nur in Wendezeiten auftrat, die für das Leben der Erde und der jeweiligen Menschheit einschneidend und endgültig waren. Die Krise unserer Zeit und unserer Welt bereitet einen vollständigen Umwandlungsprozess vor, der (...) nur mit dem Ausdruck „globale Katastrophe" umschrieben werden kann, (...) eine Neukonstellation planetaren Ausmaßes" Gebser (1949).

While Gebser's stages of intellectual and cultural evolution are presented in the model besides, we can note at this point that by the middle of the twentieth century, **at least a dozen different streams of thinking have used the term "integral"**. This has happened in very similar or at least comparable ways, although these streams, for the most part, were apparently not aware of each other, or did not refer explicitly to each other. The fact that integral ideas have been developed at all times by outstanding thinkers supports Gebser's and other developmental psychologists' theory that it is a cognitive structure, which, in principle, is accessible to every human being (cf. chapter 5), even though not all of them actually develop it into an active and everyday practice.

Box 3: Gebser*'s structures of consciousness*

Name of stage/structure
Integral
Mental
Mythical
Magic
archaic

Gebser himself identified the integral cognitive structure as the most recent one, and predicted that it would gain significant social influence in the near future. His prediction is confirmed by the "boom" that integral theorizing has seen at the end of the 20th century. It has since then mainly been associated with the name and the work of **Ken Wilber** (cf. the definition in the box above), even though it can by far not be reduced to this. Thus, for example, Paul Ray and Sally Goerner have already used the term "integral" in publications in 1996 and 1997, i.e. before Wilber first did. In contrast, authors like Michael Zimmerman, Sean Esbjörn-Hargens, Steve McIntosh, Rolf Sattler, John Heron, Daryl Paulson, and Alan Combs have been visibly influenced by Wilber. Many other thinkers use the term "integral" in the sense of an approach that integrates different ways, paths and dimensions of knowledge, while either drawing on Wilber's work to varying degrees or suggesting own models based on it. Other authors have elaborated the added value of integral thinking for individual areas of knowledge, scientific disciplines or for solving specific problems (e.g. Maik Hosang from 1999, Ervin Laszlo from 2003, Richard Slaughter from 2004, Ralph Gierg from 2004, Gil Ducommun from 2005, Oskar Guenwald from 2005 or Ashok Gangadean from 2006). How, then, can we define the concept of "integral" for the context of the present book?

As indicated above, the term includes both the aim to seek as comprehensive an understanding as possible of the world or the respective subject area (i.e., leadership) and the concession that fully achieving this goal is fundamentally impossible (Ken Wilber speaks of a "pot of gold at the end of the rainbow", 2001). **Integral thinking is** thus a heuristic that is fun**damentally open to new, additional, and sometimes self-transforming modes of knowledge**. The authors listed here have, however, gathered numerous dimensions, categories, and criteria of integral knowledge and how it can be achieved, which I consider as significant for our purpose. The "ingredients" of integral thinking, for example, include the integration of the following, partially polar subject areas, perspectives, and methodologies:

- the absolute and the relative world, immanence and transcendence
- possibilities and limits of knowledge and know-how
- material and spiritual realms
- the "True, Beautiful, Good"
- unity versus diversity, wholeness and parts
- levels and areas of reality, experience and knowledge
- awareness, structures and states of consciousness
- individual and collective evolution; steps and stages; emergence, transcendence
- cultures and societies
- polarities, types, styles, genres

- causality - finality, continuity – discontinuity

- mediations

- the presence of the past, present and future

- freedom versus necessity, freedom versus connectedness

- (material and categorial) equality or inequality

- global crisis and responsibility

- integral theory, methodology, transformative, emancipatory practice ... and more.

Nevertheless, there is hardly any integral current that uses all of these "ingredients" at the same time in their research and/or practice. Rather, we are observing a kind of struggle between some of them about what is to be considered the core of "true integrality". This might be a sign that the field of integral research is still new and unconsolidated, but at the same time, finds itself in a generally productive process of self-reflection.

Finally, I wish to mention also some of those approaches which do not use the label "integral" explicitly, but which nevertheless promote integral ideas or perspectives in the above outlined understanding. These include:

- the Critical Realism and the philosophy of meta reality of the British philosopher and science theorist **Roy Bhaskar**,
- the concept of transdisciplinarity, as promoted by **Basarab Nicolescu**,
- the idea of "complex thinking" of the French philosopher and educator **Edgar Morin**,
- the neo-cosmopolitanism of **Ananta Kumar Giri** with his "New Ethics of Self and Society",
- the "tetra sociology" of the Russian social scientist **Leo Semashko**,
- the transmodernism of the Belgian theologian and transformation researcher **Marc Luyckx Ghisi**,
- the neo-humanism of the Indian philosopher, poet and linguist **Prabhat Rainyan Sarkar** or
- the "Hylian pluralism" of the Dutch metaphysician and parapsychologist **Johannes Jacobus Poortman**.

Not least, I also mention the work and ideas of numerous quantum physicists engaged in philosophy, including **Albert Einstein, Nils Bohr, Werner Heisenberg** and **Carl Friedrich von Weizsäcker, Hans-Peter Dürr, Thomas Görnitz, Diederik Aerts** and **Amit Goswami.**

In order to structure this heterogeneous, active and transformative field, a meta-theoretical strand of integral research has developed over the last few years, which takes as its object the history of integral thought itself. It has been pushed forward by writers like **Robert McDermott, Mark Edwards, Wendelin Küpers, Jennifer Gidley, Gary Hampson, Sohail Inayatullah, Roland Benedikter** and LiFT partner **Markus Molz**.

One of the first larger overviews was published in Integral Review ("Emerging Perspectives of Metatheory and Theory", July 2010, Vol. 6, No. 3) and in the Proceedings of conference "Research Across Boundaries" hosted by the University of Luxembourg in 2010, together with the Institute for Integral Studies (also published in Integral Review, June 2013, Vol. 9, No. 1). Furthermore, a project called "Encyclopaedia of integral approaches" is an ongoing endeavor at the University for the Future, in cooperation with the Institute for Integral Studies.

2.2 Epistemological and methodological foundations of the integral approach to leadership

As shown in sub-chapter 2.1, integral and meta-theoretical thinking has a long history, which can be traced back in various fields of knowledge and research. In addition, I also wish to point at some more recent and more specific epistemological sources and inspirations in some more detail, which the idea of integral leadership as presented here is particularly indebted to. The following sub-chapter looks at three examples that have somehow inspired integral leadership:

- complexity and system theories,
- approaches of holistic, networked and relational thinking,
- the idea of holistic management

However, these are merely a selection from the numerous sources that integral leadership is drawing on. With regard to understanding the paradigmatic specificity of the integral approach, this chapter will mainly look at which new questions and perspectives have resulted from processing these sources, and in what sense a qualitatively new way of thinking about and of analyzing leadership emerges on this basis.

2.2.1 Complexity and systems theories

„Modern technology and society have become so complex that traditional ways and means are not sufficient any more but approaches of a holistic or systems, and generalist or inter-disciplinary nature became necessary" (Bertalanffy 1968, p. xx)

The extremely broad and heterogeneous field of systems and complexity theories can only be sketched roughly here by pointing at some of its central spokesmen and ideas. The starting point of all systems theoretical considerations was the perception that an increasing complexity of the world has become a fundamental fact (Husserl spoke of "infinite possibilities", Jahraus, 2012, S. 19) The challenge to science derived from this is therefore not just to explain this complexity but to deal with it in an appropriate manner, i.e., to determine its consequences for epistemology, sciences as a whole, and for society.

System theoretical approaches have been developed since about the 1930s by various authors, including Norbert Wiener, William Ross Ashby, Humberto Maturana, Francisco Varela, Stuart Kauffman, Talcott Parsons, and others. However, precursors can already be found in antiquity, such as Homer or Plato. These approaches were brought together in 1968 in a widely acknowledged synthesis by the German-born US biologist Ludwig von Bertalanffy. In his classic "General Systems Theory" (1968), which has been written over a period of 30 years, Bertalanffy explains the paradigmatic claim to offer a new, interdisciplinary way of understanding and analyzing natural and social phenomena alike. In particular, Bertalanffy sees the systemic perspective as a "panorama view", which makes more visible the structural interrelations between individual elements of diverse research fields, as well as the relationships between different research fields themselves, in the service of a more general, superordinate, meta-level knowledge.

While the corresponding theory development began primarily in engineering, Bertalanffy made clear that „systems theory is a broad view which far transcends technological problems and demands, a reorientation that has become necessary in science in general and in the gamut of disciplines from physics and biology to the behavioral and social sciences and to philosophy" (1968, S. vii). Going far beyond classical individual disciplines, the systemic perspective represents a fundamental change in

the prevailing epistemology. On the one hand, it implies an interdisciplinary, problem-centered perspective. On the other hand, it also identifies similarities (*isomorphisms*) in the cognitive principles of different sciences (ibid., p. Xviii). For example, the well-known development psychologist Jean Piaget (see chapter 5) explicitly invoked Bertallanff's general systems theory to characterize the cognitive structures he identified and their respective logics (Bertalanffy, 1968, p. 6). The aim of general systems theory is, therefore, to integrate so far disparate research fields in view of a unity of science.

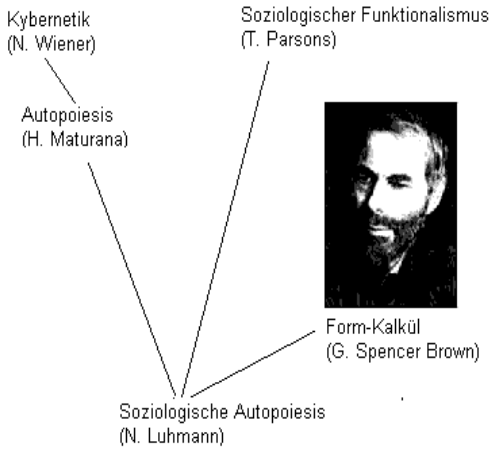
Although Bertalanffy did not see his concept as a doctrine, but as a process of inquiry, it has often been perceived as a "great scientific revolution" in the sense of a new world view, similar to the psychoanalytic and the behavioralist ones (ibid., p. 6). In particular, Bertalanffy and the representatives of systems theory turned away from the traditional concept of science as it was expressed in "conventional" physics, mechanics, and thermodynamics. Bertalanffy criticized the latter's linear causality, based on the idea of being able to exactly determine the behavior of individual variables. He also criticized that these, in turn, were mostly studied only in closed, artificially constructed systems and isolated from their environments, thus ignoring the interactions between the system's elements (Bertalanffy, 1968, p. 39 and 45). This view, he thought, was outdated. Rather, he observed

"a trend towards generalized theories is taking place in many fields and in a variety of ways. (...) We must think in terms of systems of (complexes of) elements standing in mutual interaction." (…) It seems legitimate to ask for a theory, not of systems of a more or less special kind, but of universal principles applying to systems in general" (Bertalanffy, 1968, S. 33f. und 45).

Bertalanffy describes his General Systems Theory as "the scientific exploration of 'wholes' and 'wholeness' which, not so long ago, were considered to be metaphysical notions transcending the boundaries of science". He was less interested in detailed knowledge than, above all, in the question of which theory has the most general and fundamental explanatory claim, and therefore the widest, most comprehensive perspective (1968, p. 25).

In addition to general system theory, which can be understood as a discipline in its own right, system-theoretical discourses have also emerged in many individual disciplines. Even though they use completely different definitions of a system, they do refer to some common central theorems, concepts and principles. Important concepts and principles of systems thinking are, for example, those of emergence, adaptation, self-organization (*autopoiesis*) and cybernetics, some of which have also inspired the development of certain subforms of general system theory, as well as integral theory (see below and chapter 4).

Box 4: *Strands of systems theoretical approaches influenced by Bertalanffy*



- **Emergence** is the spontaneous appearance of new features or structures of a system through the interplay of its individual elements and components. In the course of this process, something new is created, which cannot be reduced to the sum of the (properties of the) individual elements. The different levels are thus closely interrelated.
- **Adaptation** means a longer-term, mostly generic, "acclimatization" of living organisms or of their individual cells or organs to changes in their natural environment, such as those which

took place in the course of evolution. This can also imply and cause changes in behavioral habits.

- **Self-organization** means a flexible process of searching and finding new equilibrium states by open systems that are exchanging information with their environments. The term is used both in biological as well as in social contexts. It refers to developments which originate in the system itself, and in result of which structurally more complex, mostly more stable and more efficient orders emerge without any corresponding plan being at work. Thus, apparently, order emerges out of chaos, without components or participants necessarily having to have a vision of the entire development that is taking place.
- This process is closely related to the concept of ***autopoiesis*** (ancient Greek: αὐτός *autos* "self" and "ποιεῖν *poiein*", to build) by the Chilean neurobiologist Humberto Maturana, which also describes the self-creation and preservation of a system.
- Norbert Wiener's concept of **cybernetics** (1964) aims more at technical processes of regulation and control for maintaining or restoring system equilibria. Besides Wiener, Heinz von Förster, Hermann Schmidt and the philosopher Gotthard Günter are also important prophets of cybernetics. The latter is the author of the much-admired study "The Consciousness of Machines – A Metaphysics of Cybernetics" (1957). Today, cybernetics is of great importance among other things in control technology. But the term also plays an increasing role in the field of leadership, management and organizational development (see Ashby 1974, Birnbaum, 1989, Bozeman & Kacmar, 2002).

In the social and organizational sciences, systems thinking is primarily associated with Talcott Parsons and Niklas Luhmann. In view of the integral approach of leadership presented here, Parsons' pioneering work is of particular importance.

Talcott Parsons (1902-1979) was one of the most important American sociologists of the 20th century. He developed a general sociology, which distinguishes itself mainly by its "broad perspective" in the sense of a systematic reflection of interrelationships and interactions between different spheres of society and the sciences that examine them, including, in particular, economics, political science, psychology and anthropology. Inspired by a study stay at Max Weber's former Heidelberg Institute, Parsons followed Weber's comprehensive socio-analytical approach, looking for a grand theory that, besides socioeconomic structures and laws, was also able to include the logics of political, cultural and religious dynamics, as well as the psychological aspects underlying all of these areas.

While his model was originally conceived as a theory of action, Parsons soon developed it into the so-called structural functionalist systems theory. Its aim was to explain the functioning of social systems based on Robert F. Bales' variables of action orientation (Axelrad, 1952), which draws on four basic functions.

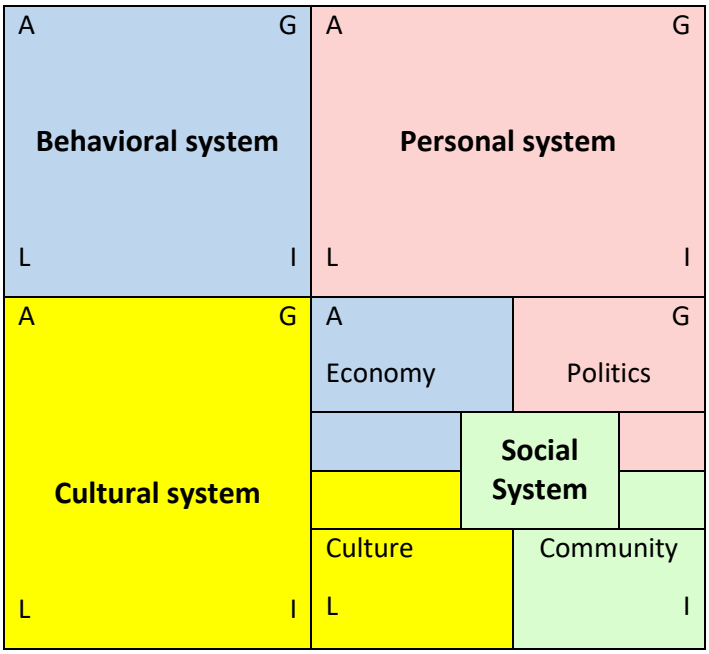
Parsons has included these into his so-called AGIL scheme (short for *adaptation, goal-attainment, latency, integration*, see below), an attempt to describe and explain the complex dynamics and exchange relations between the economic system, the political and socio-cultural system, the personality system, community and family structures, as well as the system of action (see box 5). In his later work, Parsons has extended his theory to the humanities as a whole and also integrated spiritual and metaphysical dimensions. Parsons' model has been repeatedly adopted by emancipatory movements because of its "broad" approach. Despite various criticisms, his work has set standards for sociology to this day.

For the integral approach to leadership, Parsons' model of system analysis provides at least four concrete points of connection. First, his AGIL scheme **anticipates the four-quadrant view of reality**, which has later been presented by Ken Wilber as the core of his integral model (see chapter 4). Although the meta-categories of the inner and outer dimensions of reality remain comparatively implicit in Parsons, his quadrants largely correspond to those of Wilber's integral model. At the same time, Parsons AGIL quadrants represent (sub-) systems in themselves, which each fulfill a basic function in the self-preservation of the entire system. The following four basic functions/subsystems gave the model its name:

1. ***Adaptation***: According to Parsons (1977), the system of behavior is determined primarily by the needs of the respective actors and by the ability to adapt to the changing external conditions to satisfy these needs.
2. ***Goal attainment:*** The personal system comprises the action logics of an individual and is determined by the motives and goals which the person wants to achieve.
3. ***Cohesion:*** The social system is where Parsons locates social roles, that is, patterns of behavior shaped by reciprocal expectations. This is connected to the function of integrating and including elements or persons into the system and establish its coherence.
4. ***Latency:*** Finally, the cultural system contains the often implicit (latent) values, norms and symbols that are effective within the (overall) system and which influence the behavior of its members. The function performed by this subsystem (*latency)* means the act of invisible "maintenance" of the respective value structures.

Furthermore, Parsons' individual subsystems themselves can also be subdivided according to the AGIL scheme, with all four basic functions reappearing also on the micro level. In some way, this concept resembles *holonic* thinking as it is characteristic for integral model (see below). Even if some of the individual building blocks of Parsons' AGIL scheme are located in different areas than in integral theory's quadrant model, their similarity is quite evident.

Box 5: ***Parson's AGIL scheme***



A second important connection between Parsons' sociology and integral theory is his **thinking in long developmental horizons**. Parsons has analyzed societies from primitive, uncritical cultures, to archaic high cultures to modern or even postmodern present societies. On the basis of a theory of increasing complexity, these appear as different types (or stages) of development in the process of socio-cultural evolution. According to Parsons, this evolutionary process takes place in ideal-typical phases, as they have later been identified and described in similar ways by Günter Dux' sociology of genetic structures (Dux, 2005) and by various integral approaches. Parsons distinguishes four phases of transition from one complexity stage to the next:

1) The ***differentiation*** of an existing system by the development of functional subsystems, which had not been clearly distinguished before,
2) a ***standardization*** of the new functional structures, thus gaining efficiency ("*adaptive upgrading*"),
3) the ***inclusion*** of previously excluded actors in subsystems and thus a further refinement of the respective differentiation,
4) the ***establishment*** of the new, more complex system, which gives it sufficient legitimacy to be perceived as generally binding (value generalization).

A third connecting point between Parsons and the integral model is the conceptual juxtaposition and close **interaction of the AGIL scheme quadrants** on the one hand **with social and individual/personal development** on the other, which, in fact, are already laid out in the first edition of Parsons' "System of Modern Societies" (1951). Moreover, Parsons' initial question: "What keeps modern systems together?" implies a degree of differentiation and comprehensiveness of perspective, which can only be gained by including **all quadrants, their interrelations and the developmental dynamics** to be observed in each of them.

As to the developmental dimension, this means that the objectives of a (sub) system can only be achieved if the necessary structures and conditions are available, and if the objectives themselves are in no structural contradiction to the complexity of the larger system. For example, the goal to succeed on a global market can hardly be achieved with insufficiently trained employees. It also means that the tasks defined in a system and the resources necessary for realizing them must be distributed in such a way that resources fit tasks. For instance, employees of an organization should not be trimmed to fit a uniform profile of requirements, but rather be appointed according to their individual capabilities.

Even though Parsons was not able to include the models of structural cognitive development that had only appeared later, i.e. by Kohlberg, Loevinger, or Commons (see chapter 5), his ideas on how the two dimensions (the psychological and the social) could be integrated in view of a more differentiated social sociology, created an important pillar of the integral model. For understanding leadership in and beyond organizations, Parsons' structural functionalist systems theory thus provides important suggestions for analyzing the **interaction of social and personal development**. His model, which for many years was at the heart of American sociology, established a heuristic framework, which an integral approach to leadership can build up on.

A fourth connecting point are **Parsons' five *pattern variables***. They describe important tensions between different dichotomies and polarities, which are often at the basis of decision-making challenges leadership, but which also play a role in social analysis and in genetic theories of individual structural development. In leadership research, Parsons' poles have been examined as personality traits or leadership styles. In more recent integral approaches, they mainly appear as **types** (Wilber, 2000). The Graves Values System conceives some of these polarities as dynamic pendulum moves in development processes. Overall, the *pattern variables* offer conceptual tools which help to facilitate difficult and dilemmatic processes and help to understand them theoretically.

Box 6: *Parsons' Pattern Variables*

- Affectivity versus Affective Neutrality
- Collectivity versus Self.
- Diffuseness versus Specificity
- Ascription versus Achievement
- Expressive versus Instrumental

In sum, Parsons has created a widely accepted model that, by and large, can claim to be a *grand theory*, which has inspired the integral model of leadership in many respects. Quadrants, developmental stages, patterns/dimensions and their interrelations (*interchanges*), as well as dilemmata and

polarities have already been conceptually designed in Parsons' work. Parsons' theory of *interrelationality* even goes beyond Wilber's model in terms of characterizing the relations between different entities.

Later, various other sociologists have further developed systems theory on the basis of Parsons' work. Among his pupils were **Robert K. Merton** and **Niklas Luhmann**, who in some respects also deconstructed and altered Parsons' theory. Although Luhmann, therefore, offers less specific points of reference for the present integral approach of leadership than Parsons, he has developed his own organizational sociology (in addition to his more well-known theory of society, his political theory and his sociology of knowledge, cf. Horster, preface). Like Parsons, Luhmann understands social and organizational theory as systemic disciplines. Like Parsons, he also emphasizes the relations between different system elements, as well as the interpenetration of whole systems (Schriefl, in: Horster, 2013, p. 73). Similar to the integral approach, Luhmann rejects any primacy of either the individual or the social, but postulates a principal coevolution and close interaction of both of them (ibid.).

A central term in Luhmann's system theory is that of **autopoiesis** (Greek: autos = self, poiesis = creation). In the work of Chilean neurobiologists **Humberto Maturana and Francisco Varela** this term is described as a mechanism for the self-preservation of systems (1980). Luhmann has transferred this concept to social systems. Furthermore, he replaced the sociological concept of "action" (*Handlung*) by the terms "operation" and "communication". Communication, he claims, works in a similar way in social systems as does living organisms' self-reproduction in nature. Just as the latter take up only those substances from the environment that are necessary for their self-reproduction, communication systems only perceive information from within their environment that somehow relates to their current tasks or interests, in other words, that connects to past experiences and communications.

> According to Luhmann, "social systems (…) do not consist of people, not even of actions, but of communications." (*Luhmann 1986, p. 269).*

At the basis of Luhmann's systems theory is therefore the idea of an **operational closing of systems**, which is why he places particular emphasis on the **difference between the system and its environment** as a defining characteristic of systems. Luhmann considers man "in his physical and psychological dimensions" as "located outside the social system". This enables him to "describe the relationship between the social and the individual symmetrically" (Schriefl, 2013, p. 74). This shows a number of differences as compared to Parsons' sociology, as well as to the integral model.

While in Parsons (1977), all functional elements and structures of a systems satisfy certain needs (see above), Luhmann is less interested in functions than in the "meaning" of structures. Ultimately, he sees this meaning in the **self-reproduction of the system**, or in **reducing complexity via communication**. Interestingly, he seems to count individual consciousness and subjectivity among the factors that make up "the infinitely complex system environment" which supposedly is why he has not studied them in any detail. Unlike Parsons, Luhmann considers psychological systems to be ultimately "insignificant" (Urban, 2013, p. 89). Implicitly, he seems to assume that subjectivity and individuality are a sort of "black box", characterized by circular closeness and self-reproduction, as it were (Urban, 2013, in Horster, 2013, p. 92). However, he has not come up with an actual theory of subjectivity himself.

From an integral perspective, the fact that Luhmann neglects the dimension of subjectivity, appears as an unnecessary constriction of systemic thinking. Even though Luhmann's approach does give a lot of space to the concept of observation and reflexive self-observation (second-order observation) of systems, it does not offer clear criteria for this. To the extent that Luhmann promotes a break with the primarily subject-centric idea of cognitive insight (Emmerich/Huber, 2013, p. 151), this seems quite logical. However, important questions remain open here, such as how blind spots of observation can be avoided and how much or what kind of consciousness is necessary for the autogenesis of systems to work (Klemm, 2010, p. 198f.). Thus, according to Luhmann, even science, as a form of "second-order observation", cannot claim to have a privileged access to knowledge. This ultimately leads to an epistemological relativism and appears insufficient from an integral point of view.

Regrettably, the more mathematically and technically oriented **cybernetics** and corresponding theories of complex systems also **widely ignore the individual as a complex system** in itself (see Brand, 2013). In this context, **game theory** is another example, which also works with highly simplified assumptions about the motivation of individual action (cf Maynard, 1982).

Other sub-forms of systems and complexity theory which are interesting for the integral approach are **chaos theories** and more subject-related complexity approaches, as well as the **systems theory of conflict**. For example, Stahl (2013) sketches complexity as an inner, subjective state, namely a feeling of overwhelm resulting from a high decision-making pressure in situations the consequences of which are inconceivable for the decision maker. This sense of complexity (or things being complicated) is caused by a stimulus satiation and information overflow, which are perceived as chaos, because the person cannot recognize any ordering structures. It thus focuses on the subjective dimension of complexity. For if and to what extent a challenge is perceived as (too) complex (or complicated) is not so much an objective question, but rather a question of the individual competence to deal with complexity (see below, chapter 5).

As another example, systems theory of conflict considers conflicts as symptoms or results of certain, non-compatible types of communication that have established themselves as separate, more or less closed systems. **Systems-theoretical conflict analysis** therefore attempts to identify the respective inherent logics of psychological and social processes and, if necessary, to change them in a constructive way. So in this context, certain types of sense-making systems are perceived as functioning like autopoietic systems with a tendency of self-preservation. Simon (2010, p. 29) therefore holds that we "do not have to explain the persistence of a conflict, but rather its ending". Based on the claim that perception is always selective (as emphasized also by Luhmann), the process of social actors' constructing of reality must be understood as the production and reproduction of systems (world views, sense-making structures or networks). In this process, a specific network of thoughts produces other, related thoughts (Simon, 2010, p. 25f). Besides providing a sound analysis of these cognitive systems, practical approaches to conflict management must therefore offer strategies to overcome the relevant dysfunctional patterns and replace them with more functional ones.

2.2.2 Holistic and network thinking

Holistic and network(ed) thinking are also forms of systemic thinking, presupposing a systemic perspective. I mention them here as independent sources of integral thinking because similar to systems theory of conflicts, but in contrast to the more academic systems theory, practical concerns are paramount here.

Networked thinking

The main triggers of the networked thinking approach were massive real life, global macro challenges, as well as the first interdisciplinary attempts to respond to them. One of the central reference points of networked thinking was **Donella and Dennis Meadow's study on the limits of growth**, which was commissioned by the Club of Rome in 1972, funded by the Volkswagen Foundation, and has been made available to a broader public by the University of St. Gallen (Meadows et al., 1972). Other "spin doctors" were holistic philosophers and scientists, such as **Ernst Ulrich von Weizsäcker, Hans Ulrich, Matthias Haller**, and, in particular, the biochemist and ecologist **Frederik Vester** from Munich (see below).

Conventional thinking	Networked thinking
Linear causality, simple relations between variables	Considering interrelations between multiple variables
Simple logical conclusions	Contextual thinking
Fear of complexity, thus rigid, undercomplex approaches	Dynamic, process-oriented views, ability to accept and self-correct mistakes
Focus on quantitative data, huge data amounts, focus on details	Identifying patterns and action logics, reducing data to few key variables; fuzzy logic: perspective on gross meta structures
Preference for concrete, visible and quantifiable data	Awareness of the relevance of soft, subjective data and their definition
Production focus (producing things)	Function focus (meeting needs)
Short time horizons	Long time horizons
Tendency to (over) control, top-down interference into the system = proceeding against systemic logics	Working with the system and its inherent logics and functioning
Side effects remain unnoticed	Holistic viewpoint captures all influencing variables in terms of their systemic relevance
Belief in growth and progress	Trust in systemic equilibria, respect for natural boundaries and optimal conditions
Growth as a goal and aim in itself	Viability of the system as a primary objective, "cybernetic maturity"
Knowledge Culture	Learning culture

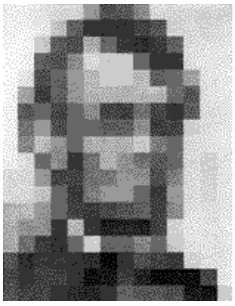
As a member of the German National Committee of UNESCO, Vester developed an approach to thinking, organization and leadership, in cooperation with a wide range of practitioners and based on the experience of numerous development projects, which he called a "**bio-cybernetic sensitivity model**" (Vester, 1999). Vester holds that the underlying "networked thinking" is the only appropriate form of dealing with complexity in today's complex systems, and therefore a necessary new paradigm for politics and science.

At the same time, he delimits it from previous "technocratic" and constructivist worldviews which he considers as typical modern attempts to achieve short-term, mostly growth-oriented goals through increasing rationalization, top-down planning and technical control (see chapter 2.2). According to Vester, these views tend to interfere with natural systems and their functional cycles – and thus to sometimes even destroy them, instead of acting in harmony with them. This is due to modern

thinking's restricted – and often one-sided perspective. As one of the causes of such an "un-cybernetic" behavior, Vester mentions certain features of scientific modernity which he characterizes as outdated.

The table above contrasts some of them with the features of networked thinking as propagated by Vester. Essentially, the latter is a comparatively more complex thinking on the basis of a global systemic perspective, striving to cognitively and theoretically represent the complexity observed in reality. Important elements of Vester's idea of networked thinking are:

- taking multiple perspectives on any object or phenomenon in view of a comprehensive understanding thereof
- a focus on interactions between individual elements and variables of a system and thus, on behavioral logics, functional mechanisms and dynamics of the system as a whole rather than a small, too detailed view of individual parts of a system
- giving priority to the identification of key variables and their properties over a quantitatively dense data collection
- including soft data and variables, as well as long time horizons
- openness and theoretical flexibility in view of ongoing changes to the definition of the problem and the conceptual or analytical framework, if new information suggests so
- a consistent focus on the viability of the system as a whole, as a superior goal which other objectives are subordinated to.



Vester illustrates the **superiority of a "fuzzy logic"**, focusing on superordinate, general patterns and functional logics, over the conventional scientific ideal of a detailed knowledge by referring to a computer-generated portrait of Abraham Lincoln (see picture). It consists of numerous squares in different shades of gray. While an observer looking at the details of this image sees only squares, but does not recognize the face, only a greater distance and a blurred view, looking at contours, patterns, and connections, allows to see Lincoln's face as a whole. Vester therefore combines his plea for a fuzzy logic with a critique of over-specialization in many parts of science, which sometimes prohibits to see the "larger whole" – and thus also certain long-term consequences and collateral damages of specific scientific or economic projects.

Systems psychologist Dietrich Dörner has carried out an experiment in 1975 (see box 7) which shows that failing to consider systemic interrelationships necessarily produces counterproductive result, even if they were not intended by anyone.

Critical economists and politicians have been pointing at this issue with regard do academic economics for some time. With Philippe Séguin, former President of the French National Assembly, they complain that many models of economic theory hardly take account of today's reality (Séguin, 1996, Vester et al., 2000, p. 83). These criticisms include the "growth paradigm" (Binswanger, 1969, 1979 and 2010) as part of the "outdated concepts from the stone age of the fifties and sixties". The theory of bio-cybernetic, networked thinking responds that a **company "must be able to prosper even without permanent growth**. On the other hand, if the company is structured in a way that it is dependent on constant growth (...), its collapse is only a matter of time "(Vester et al., 2000, p. 84).

Box 7: *The Tanaland experiment*

In Tanaland, a fictional African region invented by Dietrich Dörner, a dialogue program was supposed be developed and implemented. For this purpose, all important data and influencing variables, based on those of real African regions, were recorded in a computer program. Now, twelve experts from various scientific disciplines were each given the task of improving the living conditions of the people of Tanaland. To this end, they were provided with extensive World Bank loans during the simulation, with which they could build irrigation systems, attract industrial settlements, improve medical care, modernize agriculture and reform supply services to the population. The respective measures and developments, as well as their respective interactions, could be observed and evaluated virtually over a period of a whole century.
The result was more than devastating: instead of improving people's lives according to the original objectives, disasters and famines appeared after some initial temporary improvements. The cattle herds had melted down to a fraction, the sources of food dried up, as well as finances. Repayment of the loans was no longer possible "(Vester et al., 2000, p. 36). As a result, the experts involved in the experiment had created a mess and worsened the situation of the country instead of improving it, even though everyone had done their best and was driven by the best of intentions.

(cf. Dörner 1989 and Vester et al., 2000, p. 35f.)

While a detailed presentation of this topic goes beyond the limits of this book, I wish to point out the importance of Vester's ideas for the integral approach of leadership in and beyond organizations. Like Bertalanffy, Vester emphasizes that the behaviors of natural systems are "theoretically justifiable laws", which apparently emerge “from the properties of matter itself and extend from the structure of an atom to the self-organization of cognitive processes" (Vester et al., 2000, p. 112). In fact, similar claims have also been voiced by other scientists since the 1970s, such as by cybernetic Heinz von Förster, biologists Rupert Riedl and Joel de Rosnay or by the economists Friedrich August von Hayek, Hans Ulrich, Hans-Christoph Binswanger, Fredmund Malik and Peter Gomez.

In this perspective, **networked thinking requires two things: a "training in pattern recognition"**, i.e. turning away from the "classification universe" (Vester, 1999) towards a relational, networked way of thinking in education and training, as well as **upgrading networked thinking to become the new standard in science and practice**. Instead of only looking *outside* from a point of view within the system, it is necessary to also look *at* the system from the outside. This is the only way to recognize its logic of functioning. The goal of the networked thinking approach is thus a very practical one. On the one hand, it aims to make existing systems as fault-tolerant as possible and, as it were, to bring them to "cybernetic maturity" (Vester et al., 2000, p. 104). On the other hand, it also aims at creating constellations in which the problems encountered today would not occur in the first place. In other words, it calls for conceiving economic, social and political action differently from the outset. For example, companies could be built that are successful without growth or that are happy with less consumption. A more systemic and ecological thinking would compel economic, social and political action to take into consideration the interests of mankind as a whole to a greater extent. In this sense, **networked thinking is the basis for a change of perspective**, as suggested by Peter Barnes and Otto Scharmer who call for a paradigmatic transition **from economics "2.0 and 3.0" to an "economy 4.0"** (Scharmer speaks of ego versus ecosystem economies, Scharmer, 2009 and Scharmer/Kaufer, 2013). Both provide valuable inspiration for integral leadership thinking and practice.

Holistic thinking

"(Holism is) the tendency in nature to form wholes that are greater than the sum of the parts through creative evolution. (…) Compared to its parts, the whole constituted by them is something quite different, something creatively new, as we have seen. Creative evolution synthesizes from the parts a new entity that is not only different from them, but transcends them. That is the essence of a whole. It always transcends its parts, and its character cannot be inferred from the characters of its parts." *(Jan Christiaan Smuts, Holism and Evolution, 1926, p. 342)*

Holistic, or holonic thinking is closely related to networked thinking. The term "holism" (Greek: ὅλος / holos "whole") describes the attempt to see phenomena as comprehensively as possible, which also includes to contextualize them. Holism also assumes that the **fundamental complexity of the world** is a fact, and that therefore, all natural systems, including physical, chemical, biological, intellectual, social, economic ones, etc., should be seen as complex systems of interrelated properties. As a concept, holism goes back to South African statesman **Jan Smuts** (1870-1950). While Smuts' political ideas are outdated today (he was one of the pioneers of apartheid in South Africa), his philosophical work was intensively absorbed by Gestalt psychology. While the latter was interested mainly in holism's psychological implications, Smuts understood his concept as a **comprehensive theory of both natural sciences and humanities**, describing the structure of the entire cosmos. In his book "Holism and Evolution" (1926), Smuts made the claim that "reality is fundamentally holistic and that all forms of existence (...) strive to be whole". On this basis, he understood holism as a theory of knowledge, as a property inherent in all things, and, Hegelian as it were, as something that all things strive to become.

The attempt to understand reality as a whole usually begins with a criticism of the "division of research into subjects and disciplines". This indeed leads to a high specialization in the different branches of science, but also to the fact that many researchers "are satisfied with prejudices and rumors", as soon as they move outside their (narrow) area of competence, science theorist **Paul Feyerabend** said. Nevertheless, according to Feyerabend, "the unity of what has been separated by science is simply a fact. Material processes have an influence on the mental and spiritual and are influenced by it" (*my translation*, Feyerabend, 1979, p. 13). Theorists of holistic research particularly emphasize the necessity of questioning and overcoming the (often very strict) theoretical, conceptual and methodological separation of matter and life on the one hand, and between "subjective" and "objective", psycholgical and physical phenomena on the other. "Logic, psychology, sociology, and 'raw' matter are inseparably connected in this process," Feyerabend states (1979, p. 14).

The core claims of holism are:

- the (co-)relation of parts/wholes (Adolf Meyer-Abich), characterizing the relationship between an object and its context
- a processor-oriented view and
- the assumption of an evolution towards higher complexity based on the idea of an ideal typical growth hierarchy (Jantsch, 1979).

As a rule, a holistic approach aims at taking into account both the integral, overall context and its interrelated parts. The following guiding principles are crucial (see Steinle, 2005, p. 20ff):

Box 8: *Core principles of holism:*

1. The whole is more and different than the sum of its parts.
2. The whole retroacts on its parts (and vice versa).
3. The whole chronologically emerges from its parts.
4. Entities cannot be explained (completely) analytically.

(see Steinle, 2005, p. 20)

A whole is constituted by its elements, it bundles and organizes them. In addition, there are relations between its parts and interactions between the whole and its parts. The whole also has competences, characteristics and patterns that only result from the integration of its parts. The emergence and development of these components and structures goes beyond a mere accumulation of partial properties. In that sense, not only is **the whole more and different than the sum of its parts**. Moreover, the influence of the whole on the parts also reduces the importance of certain properties of the elements within the whole. **The properties of the parts in a holistic context are thus different from their properties looked at individually**.

While some variations of holism have postulated a primacy of the whole over its parts, where the parts are subordinate to the whole in some sense, **Arthur Koestler** (1968) has coined term "**holon**" around the idea of an **equivalence and equal value of parts and whole**.

The origin of the word is a combination of the Greek "hólos" (the whole) and the suffix "-on" (part, being whole). It thus means an entity that is both a part and a whole. The so-called **hol*on*ism** based on this idea of Koestler therefore also assumes – as did the holistic thinkers Smuts and Jantsch before – that the whole not only emerges from the parts, but is itself part of a more comprehensive whole. So depending on our perspective, *holons* can simultaneously be viewed as integrative wholes and as parts of a larger, integrative whole. Accordingly, from a *holonistic* perspective, reality is composed of a hierarchy of parts and wholes (see Koestler, 1968). For example, an organism consists of cells which are composed of molecules, consisting of single atoms, etc. (see box below). Organizations also consist of parts, e.g. business units which, in turn, are composed of relatively independent teams and employees.

The idea of an **evolution** of living creatures or, more generally, of wholes, through successive holonic stages demonstrates the **processual character of holistic thinking**. The idea of the hierarchy of wholes should therefore be described more precisely as a ***holarchy***. In this understanding, a new stage or a new whole emerges from its lower level, i.e. less complex, precursors. The precursors are thereby transcended by the greater, more inclusive level of complexity of the next-stage whole. However, they also remain an integral part of the new whole, and to some degree remain wholes in themselves. These interdependent stages of holistic development are called a "holarchy".

In each holon there is a tension between its quality as an integral whole and its being part of the next higher holon, in other words, a tension between his quest for "individuality" and his striving for "conformity" with the whole. At the same time, these tensions are the basis for further exchange and development processes within the holarchy. With each step "upwards" in the holarchy, holons show increasingly complex, flexible and less predictable modes of operation and (re) action, which therefore sometimes cannot be fully explained analytically either.

In contrast to a more technical systems view based on an understanding of systems as being solid and composed of fix structures, **holistic perspectives focus on processes of self-organization and *autopoiesis***, as they have been described for open and, in particular, for living systems by Heinz von

Foerster (1993), Humberto Maturana and Francisco Varela (1975). In contrast to the metaphor of the system as a "machine", **Ilya Prigogine** has proposed the concept of "**order by fluctuation**" at the end of the 1970s (Nicolis & Prigogine, 1977). In this context, evolution is explained as a learning process resulting from the interplay of chance, necessity, and emergence (Jantsch, 1979, p. 34). In holistic terms, all forms of existence in the universe (physical, biological, social and cultural) strive to relate and connect towards more complex, more highly integrated units.

Note that besides this general idea of a principal striving towards more wholeness in evolution, there is **no specific "teleology" in the concept of holism**. And while the existing systemic conditions (evolved themselves through evolution) frame the possibilities of further evolution, the dynamics of self-organization recognizes the degrees of freedom that are available to make the system more stable under given initial conditions (Jantsch, 1979, p. 34). The need for wholeness, or rather, to create new, functionally more complex wholes – and thus, to learn – is therefore a fundamental driving force of evolution. In this sense, holism in Smuts' understanding is not only a principle for explaining the nature of reality, but, as it were, itself one of its creative causes.

Box 9: ***Jan Smuts about the holistic order of the world***

"There is a progressive gradation of this holistic synthesis in nature. We start from

1. purely **physical mixtures** in which there is almost no structure, and in which the parts largely retain their special properties and activities or functions. We then come to

2. **chemical compounds** in which the structure is more synthetic, and in which the activities and functions are influenced more by the new structure, so that they are very difficult to trace back to those of the individual parts. And finally,

3. we come to the **organisms** in which a much stronger linkage of the elements has been achieved, giving the parts or organs a much more pronounced unitary character; we encounter a system of order and assignment, from which finally the central supervision over all parts and organs arises. Again, from these organisms, we come

4. to the **mind** or to the **psychic organs,** in which the central supervising entity gains consciousness and freedom and a creative force of unimaginable far-reaching importance. And finally

5. we encounter the **personality**, which is the highest, most developed entity within the fabric of the universe, and which becomes a new, generative center of reality.

In each of these progressive series, the peculiarity of wholeness deepens. Holism as a process is not only creative, but self-creative" (Smuts, 1938, p. 89).

"It is indispensable to realize that the whole is not something that is added to the parts; it is the **synthesis of the parts that are in a specific structural arrangement** with each other and endowed with reciprocal activities, that establish the whole" (ibid., p. 107).

"This process of totality establishes evolution and turns the world into a progressive series of wholes or individual forms, from their physical beginnings as matter or energy to their highest creations, as life in all its manifold forms and gradations."

Smuts, quoted after http://www.gestalttherapie-lexikon.de/holismus.htm *(my translation)*

Given that in the course of this process of integration of parts on a higher level, new holons keep emerging, **the complexity in the universe continuously increases** (even though decreases in

complexity are also possible as a result of extraordinary events or catastrophies!). And based on the observation of **homologies between biological, social and sociocultural processes**, holism assumes that the same or similar mechanisms are effective in all these areas (see James Lovelock et al., 1974).

As comparatively complex structures, human beings consist of many holonic levels (Jantsch, 1979, p. 327). Their mental or **noosphere** is conceived as a potential that extends beyond the **physiosphere** and the **biosphere**. Conversely, the sphere of consciousness, a holon itself, is also subject to holarchic evolution. In the area of cognitive development, this has been investigated as a process of increasing differentiation and (re) integration of perception, processing external and internal impressions and meaning-making on ever more complex levels (see Piaget/Kohler, 2014). With an increasingly complex self-understanding, a person's understanding of inner and outer world (s) also evolves in complexity. Ultimately, this also enables the human being to recognize and understand the stages of evolution themselves and thus, one's own being and development. This happens especially once a person has arrived on the **post-formal stages of cognitive development** (for more detail see chapter 5 below and Jantsch, 1979, p. 338). Erich Jantsch, one of the co-founders of the Club of Rome, therefore emphasizes not only the "dynamic connection of man with evolution on all levels" (Jantsch, 1979, p. 19), but also his **active role as a participant and co-designer of this evolution**. As an integral part of sociocultural evolution, man therefore has the possibility and the duty to assume **evolutionary responsibility** in his respective life. We should not act against evolution, but with it, says Jantsch (1979, p. 356).

From this, holistic thinking derives an ethics that transcends the level of the individual, based on the process perspective of evolving systems. In this sense, Jantsch says that ethi**cal behavior is defined by taking into account the logic of evolution** (Jantsch, 1979, pp. 25, 357 and 365). "Ultimately, our efforts are not based on the exact knowledge of the universe, but on the knowledge of the role that we play in it – the meaning of our lives" (Jantsch, 1979, p. 415). At the same time, holistic thinking recognizes that with each new *autopoietic* level, a new ethics comes into play and thus, a new mechanism that redefines the role and duties of man according to his respective understanding of the world. While the need for meaning exists at all levels of cognitive and ethical-moral development, **answers to the question of meaning differ on each level**. This poses the challenge to communicate and to co-operate with actors at different levels of knowledge and ethical reasoning within a society or an organization, in a way that is accessible to their respective logic of meaning-making.

So what are the consequences of holistic thinking in the area of leadership and management?

Given that processes of steering and decision-making in complex contexts cannot be based on rationality alone, but must take into account phenomena of change at multiple levels of complexity at the same time, Jantsch rightly says that **leadership is "a matter of consciousness**" (Jantsch, 1979, p. 365). Leading in accordance with evolution thus consists "not in reducing uncertainty and complexity, but in increasing it. Uncertainty is growing, as the range of options is deliberately expanded." It is therefore about **"opening up" perspectives** (Jantsch, 1979, pp. 361 and 364). In this understanding, the leader appears as a "catalyst", who "supports processes that go into the right direction, (...) promotes interactions between processes" and opens up actors' awareness for a complex reality. His role is to invite perspectives, in which opposites do not exclude but include one another (complementarity). The art of leading consists in thinking, feeling and acting not just on one, but on several levels at the same time", Jantsch says (1979, p. 363, cf. also p. 367, 370).

I will therefore conclude this panorama of inspirations to integral leadership with the Sankt Gallen management model, a prominent attempt to systematically integrate holistic thinking into leadership training.

2.3 Holistic management approaches

For several decades now, management approaches have addressed the challenges posed by global transformations in economy and society, building up on ideas from systemic, networked and holistic thinking. Their decisive question was how ongoing socio-economic transformations on the one hand and the reorientation of leadership thinking could mutually influence each other positively. In fact, holistic approaches to leadership and management explicitly call for a "new orientation of thinking and acting in management", Bleicher (1996, p. 16), who also speaks of a "paradigm shift" in this regard. Bleicher therefore starts his book on "Integrated Management" with a quotation from Alvin Toffler, which makes clear the scope of the changes he holds to be necessary: "Like many machines of the smokestack era, our intellectual tools too, are ready for the museum" (Bleicher, 1996, p. 19).

Among the pioneers of holistic thinking in management, the Sankt Gall management model (SGM) is particularly important. It has been developed in the early 1970s by a working group around Hans Ulrich at the University of Sankt Gall with the aim of providing a comprehensive, integrative concept for holistic thinking in management (Ulrich/Krieg, 1974, Bleicher, 1996, p. 16). In the following decades, it saw a number of updates and revisions, such as those by Malik (1981), Pümpin (1983), Bleicher (1992 and 1996), a complete new edition in 2002 by Rüegg-Stürm and a recent update towards the “fourth generation” of the SGM (2014, see Rüegg-Stürm/Grand, 2006). So what are the core concerns, principles and characteristics of the SGM and in what sense can they be regarded as inspirations to the integral leadership model presented here?

The SGM also assumes increasing complexity and dynamics as basic socio-economic facts, and therefore sees **handling this complexity as the core challenge of leadership** (Bleicher, 1996, pp. 22f. and 31). Making "highest demands to holism" (Seghezzi, 2005, p. 9), it starts from the postulate that companies are open systems which are in permanent exchange with their environment, and that organizational fragmentation tends to complicate an optimal coping with complexity. The SGM’s systemic understanding of organizational reality includes, on the one hand, a high sensitivity of context conditions and system environments. On the other hand, it emphasizes the evolving character of companies that constantly have to (re)define their way in a surrounding that is "floating, difficult to grasp" and consequently difficult to capture conceptually (Rüegg-Stürm/Grand, 2006 and Steinle, 2005). It thus sees organizations as evolving entities that are in permanent responsiveness with the systems they are embedded in, in result of creative learning processes (Bleicher, 1992, p. 54).

The SGM explicitly explains and justifies its holistic, integrative, and developmentally based approach by pointing at the failure of more conventional, one-sided, and in some sense reductionist concepts of leadership and management (Seghezzi, 2005, p. 9, cf. Dyllick & Hummel, 1996). On this basis, it also calls for a fundamental redefinition of the concept of business administration as a whole, setting the goal to **make explicit the complexity that underlies all management processes**, thus making them more accessible – and manageable for research and practice. Moreover, the SGM understands business administration as a general leadership discipline (Ulrich, 1995) on the basis of a cybernetic analytics and systems view, aiming at developing the most efficient and functional ways to handle complexity (Steinle, 2005, p.10).

This means that, similar to integral theory, the Sankt Gallen model implies a certain **zooming-out towards meta-level perspectives** (Bleicher 1996, p. 20). In fact, it is committed to being a useful but ultimately contingent cognitive "map", stressing that maps should not be confused with the actual territory they describe. Like theories, they are not necessarily true or false, but merely represent the territory in question more or less precisely. They are thus are more or less appropriate for the context

in question. Their task is, above all, to distinguish between what is important and what is unimportant, to fade out the unimportant and thus, to **reduce complexity and turn decision-making easier**. The SGM's self-reflexivity in this regard is an important step towards an integral understanding of leadership in and beyond organizations. Due to its context-sensitive, systemic view, the SGM clearly denies the possibility of a "one best way" of leadership. Rather, it sees the role of leadership in creating favorable conditions for a sustainable evolution of the respective team, organization or system in a given setting (Bleicher, 1996, p. 36).

Consequently, an important focus is on **leaders' systemic thinking and acting capabilities**. It is not by chance that Ruegg-Stürm (2003) cites the educator Pestalozzi with his triad of "head, heart and hand" – or more specifically: networked thinking, entrepreneurial action and personal authenticity, as a role model of holistic leadership. Although **an in-depth analysis of the personal dimensions of leadership is missing in the Sankt Gallen model** (this is one of its blind spots from an integral point of view), Rüegg-Stürm and Grand characterize management as a communicative and decision-making practice which develops over time (Rüegg-Stürm/Grand, 2006, p. 8). Bleicher (1996, p. 54) also stresses the autonomy of creating spaces for consciously (re)designing organizational development. Wherever organizations constitute themselves through processes of communication, decisions and actions (Rüegg-Stürm/Grand 2014), their development takes place mainly by creating conditions which allow the respective subsystems to dynamically unfold in alignment with their inherent logics and interrelated needs (see below, Bleicher, 1996, pp. 59).

The SGM has thus no fixed focus on some specific goal, but rather **provides a toolbox containing methodical elements for organizational design and development** on the one hand and for educating leaders' minds on the other. So what exactly does it mean to **"do the right things right" at the right time**, as Wojda (2000, p. 37) put it? Given the restrictions of this chapter, I limit myself to highlighting three core suggestions the Sankt Gallen management approach is making in this regard.

First, the SGM turns away from a one-sided, purely economic orientation in the tradition of conventional business-administration (Bleicher 1996, p. 26) and rather includes all relevant embedding social systems and ecological environments, as well as important stakeholders in all of these (Ruegg-Stürm, 2003, p. 25-28). This is combined with an expansion of perspective in the direction of a more ethically grounded way of doing business (administration), which is concerned about transparent communication, even about potentially negative consequences of entrepreneurial activity (and even if unintended), with those affected by them. Influenced by Peter Ulrich's integrated economic and business ethics (2001), the SGM also opens up towards giving material and immaterial goods an equal value (Ruegg-Stürm, 2003, p. 18).

A second core element of the SGM is the distinction of three levels or horizons of sense-making, which must be addressed by leadership in their respective specificities. These are:

1. optimizing daily business (operational level),
2. building a solid basis for the future (strategic level) and
3. basic questions of entrepreneurial identity and social responsibility (normative level).

While the first two levels are also addressed in more conventional approaches, the third level's larger systems perspective makes the SGM's integrative approach relevant for integral leadership.

Thirdly, the SGM emphasizes the need to integrate sub-systems with their respective logics (such as production, quality management, technology or environmental concerns) into a coherent whole. With regard to the question of how this integration of sub-systems should occur, the SGM takes a

hol(on)istic approach, which Seghezzi (1997, p. 17) calls "integrative management". Ulrich/Probst (1991) speak about weaving together all subsystems into an "integrated metastructure" (see also Wojda, 2000).

So what does the Sankt Gallen approach understand by a “holistic, integrated view of leadership and management” in organizations? The founder of the SGM, Hans Ulrich, characterizes holistic thinking as necessarily systemic, allowing for an intellectual interplay on different levels of abstraction, as well as between part and whole, and constantly going back and forth between partial knowledge and a more general, big picture view. This also addresses the problem that the usual division of labor tends to be perceived as an obstacle to meaningful work (Bleicher, 1996, p. 33).

Box 10: *Holistic and integrative leadership and management according to the SGM:*

“The SGM is an integrative, cohesive thinking, which is based on a broad horizon, assuming greater connections, and taking into account many influencing factors, which is less isolating and decomposing than the usual procedure. It is a way of thinking which corresponds more to that of a generalist who brings together diverse element into a big picture than to the more conventional analytical approach of the specialist who is limited to a narrow subject of expertise" (Ulrich/Probst, Handbuch, p. 11, cited by Bleicher, p. 46, *my translation*).

Holistic thinking:
- is thinking in open, interwoven systems,
- operates both analytically and synthetically and goes beyond linear causality,
- uses circular rather than linear models (everything is interconnected),
- links multiple information about structures and processes on the basis of a cybernetic worldview,
- is consistently interdisciplinary (see Bleicher, 1996, p. 47-49).

The following experiences and guiding principles can be found in the Sankt Gall manuals on application and implementation of holistic thinking in management:

- "Our unresolved problems of today are the products of the problem solving strategies we used yesterday" (Ulrich / Probst, cited according to Bleicher, 1996, p. 47).

- "It is impossible to comprehend a complex system from a single point of view" (Rüegg-Stürm, 2003, p. 19).

- "The analytical view of the particular element is replaced by an integrative thinking focusing on the larger whole" (Ulrich / Probst, cited according to Bleicher, 1996, p. 47).

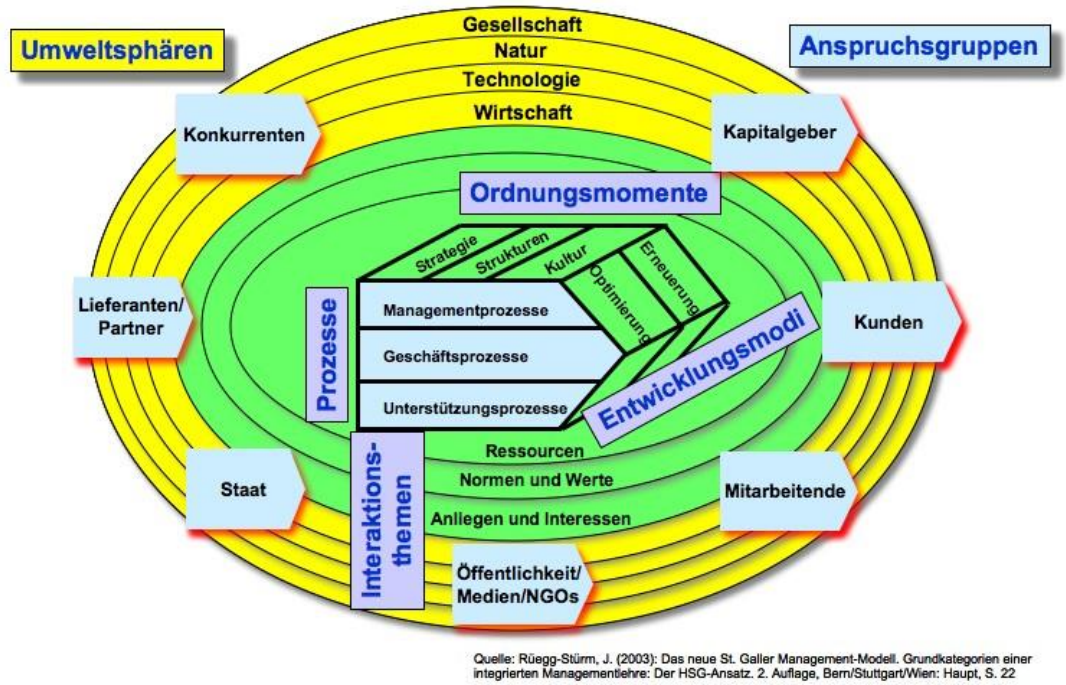
- "Measures reducing complexity are right when it comes to achieving known goals in known ways, but they are wrong when it comes to finding new goals and exploring new ways to achieve them. We cannot rationally regulate what is still unknown to us" (Ulrich/Probst, cit. by Bleicher, 1996, p. 34).

- Structures can be transformed more easily than cultures, which, like grammatical rules, have a large influence. The culture of an organization is like an iceberg, the larger part of which is invisible (Rüegg-Stürm, 2003, pp. 56-60).

The implementation of the SGM's holistic-integral thinking are depicted in the so-called management cube, which presents the different levels, processes and functional areas of management and serves as a tool for holistic-integrative analytics (Steinle, 2005, p. 26 and 37, see box 12, in German). Besides six basic categories, it contains numerous other (subordinate) elements, such as the models of five design fields and factors (Wojda, 2000, p. 31), of strategy development and implementation, of multilevel analysis (Steinle, p. 15, after Wild), the scheme of management systems (Seghezzi, p. 10), the management process model (Seghezzi, p. 20), a model for integrating quality management and some others.

Box 11: *The six basic categories of the SGM*

Die sechs Grundkategorien des neuen St. Galler Management-Modells



Quelle: Rüegg-Stürm, J. (2003): Das neue St. Galler Management-Modell. Grundkategorien einer integrierten Managementlehre: Der HSG-Ansatz. 2. Auflage, Bern/Stuttgart/Wien: Haupt, S. 22

It also provides tools for increasing the learning ability and intelligence of the organization and for helping it to integrate all relevant aspects. An example is the so-called puzzle workshop, which supports a structured dialogue based on participants' self-reflection and creativity and fosters systematic processing of irritations in service of the organization as a whole (Steinle, 2005, p. 48ff).

Due to its multi-dimensionality, the SGM has been criticized for being a comparatively complex (and complicated) model (Seghezzi, 1997, p. 19). Nevertheless, it is a much quoted reference point and benchmark for holistic management and has set international standards. From an integral point of view, the SGM's holistic thinking and its integration of different (theory) components, levels and fields of leadership and management can be seen as a precursor of the integral leadership (sometimes also called proto-integral). This is because the SGM works with a holonic concept of interrelations between systems and sub-systems (parts/wholes), thereby recurring on Koestler's idea of interlaced systems (holons). It has a very differentiated understanding of the functioning and the evolution of nested systems as well as of the behavior of their respective elements. The principles of recursion, autonomy and viability formulated by Bleicher (1996, p. 50) in some respects resemble Ken Wilber's ten basic statements on the character and behavior of holons in his integral model (Wilber, 2000 and 2001, p. 63ff.).

Besides this, it is questionable to what extent the integral and the Sankt Gall model have the same understanding of holism. In fact, some of the SGM's blind spots can be illuminated based on the integral model. As shown above, the SGM has strong systemic roots, based in particular on systems theory. Similar to the sociological systems theories outlined before, the SGM does differentiate and broadly reflect various organizational and environmental (sub-)systems. However, it does not elaborate on the prerequisites of their respective functioning on the end of the persons involved. In other words, the inner, subjective, and intersubjective dimensions are relatively unexplicit in the SGM and, in some sense, neglected altogether. So, the SGM's idea of wholeness, as well as its program of holistic analysis (Steinle, 2005, p. 24), are largely systems theoretical in the classic sense, focusing merely on the exterior characterictics of systems. In contrast, mental phenomena and systems, as well as processes of communication and meaning-making which bring external systems into existence in the first place and shape them continuously, are not systematically discussed (Steinle, 2005, p. 33). This appears as a systemic blind spot in the SGM's understanding of leadership.

The next chapters will therefore consider the integral model of leadership in more detail, and look at how it addresses the blind spots of the approaches mentioned before.

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