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# COMMON SENSE OF THE UNCOMMON SENSE CALLED
# SYSTEMS THINKING AND SYSTEMS THEORY: HOLISM

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## ABSTRACT

Systems theory is a theoretical response to the dangerous natural fact that humans are more able to influence than to think of everything when making decisions and acting. System theory and cybernetics need and support trans-disciplinary and inter-disciplinary approaches. How? A dialectical system of seven principles provides the first answer. We suggest, as its second step, the *law of requisite holism*. Cooperation of several systems theories may be a good case. Several laws including the notion »requisite« may jointly / in synergy lead to the third step. Information needs may define limits. This synergy/system/network may help us find the common sense of the uncommon sense called systems thinking/theory: (requisite) holism.

**Key words:** cybernetics, holism, requisite holism, specialization, systems theory, the law/s of requisite ...

## THE SELECTED PROBLEM AND VIEWPOINT

Systems theory surfaced right after the terrible period caused by lack of holism of thinking of the influential persons of the entire world: World Wars I and II and the world-wide economic crisis in 1914-1945. As the General Systems Theory, it tried to produce a bridge between all differently specialized disciplines of science as well as practices by provision of a common basis of description of everything, and a methodology of holistic thinking [1, 2, 3, 4, 5]. The notion *system* was defined, and it means a *whole*. Thus, the systemic description was (and is) meant to be a *holistic* one, rather than only a relation-based one. Later on, it became clear that there is hardly a unified opinion about what *holism* actually means, and when is it achieved. Thus, a long set of systems theories resulted, each of them having its own notion of the system, when it comes to its own specialized version/application of systems theory-ies. The bridge between sciences / professions / practices is missing frequently. This is the selected problem of this contribution. Its selected viewpoint is a suggestion: the dialectical system of *seven principles of holistic thinking*, the *law of requisite holism* and synergy of several systems theories as a case of it, a dialectical system of *several laws of requisite* .., reflecting in synergy the reality, that the levels of a requisite, i.e.

both necessary and sufficient, and therefore appropriate, holism can be quite different, and depend on the human decision. It is based on information needs. Decision-makers and authors must take explicit responsibility for their selected level/s of holism.

## 1. SYSTEMS THEORY – AGAINST OVERSPECIALIZATION AND FOR HOLISM

The modern society is based much more on knowledge/innovation and less on material preconditions than ever before, although both sources of survival have always been unavoidable. The recent three centuries have provided for so much more knowledge, that a narrow specialization has become both unavoidable and dangerous: it blocks people from achieving and maintaining a holistic and unified presentation of, and impact over, the entire world / nature rather than ruining it. L. von Bertalanffy, the founding father of the *General Systems Theory,* created General Systems Theory **against overspecialization and for holism** [1, p. VII]. His important notions, unlike in traditional sciences, include *interdependence* [6, 7]: all parts of the universe, in one way or another, directly or less directly, sometimes even very indirectly, influence each other because they differ and hence depend on each other; they are mutually complementary. Later on this finding was well expressed and documented in *Gaia* [8], when it comes to nature in general. It is nowadays expressed well again in literature on systems, chaos, and complexity theories. But the traditional disciplines and other specialists tend to forget about the humankind's need for **both** narrow specialization (to provide depth of insight) and holism (to prevent oversights).

The (General) Systems Theory used the word system as a basis to *describe* reality. Cybernetics used the same notion as a basis to *control* reality. Step by step, they have become two aspects of the humans' dealing with the same issue, which is *complexity* (rather than complicatedness), or both of them, reaching beyond the limits of the human capacity, especially of an individual, especially of a rather narrowly specialized one. As a summary, we can say, that there are four basic attributes to the *contents* of the notion ***systemic thinking:***

1. *Holism* (i.e. thinking of anything as a whole with no

serious holes in the knowledge, other information and capacity-ies) *in description* of reality aimed at enabling *mutual understanding and cooperation* of different specialists, who all deal with reality of the universe in which humans live as powerful constituencies and parts.

2. *Holism in conception and grounding of control* over the same reality by humans.
3. *Complexity* of reality is *admitted and dealt with* in both description and control (including their own description) with no oversimplification. No reductionism.
4. Tackling of the *real complexity beyond the human capacity* to *fully understand* it, at least to really understand it as a whole. This reaches beyond considering it with limitation to single viewpoints, which can be covered by single (traditional) specialized disciplines of science and practice that are clearly delimited from each other.

Therefore *trans-disciplinary and inter-disciplinary approaches* are prerequisites of systemic thinking:

• *Trans-disciplinary approach* means the specialist's capacity to accept that there are other disciplines and viewpoints which are worth his or her due attention, not his or her own only. They even may have some attributes in common. They differ and hence help each other, first of all, by their differences, anyway.
• *Inter-disciplinary approach* means that cooperation of many single-disciplinary specialists, who accept trans-disciplinary approaches, work in a network to come closer to holism, because they are interdependent due to their differences in specialization.

Hence: The reality itself requires that we (individuals and entire mankind) pay serious attention to the notion of *holism* everywhere, not only in biology, the special field of L. von Bertalanffy, or mathematics, the special field of N. Wiener, or in a special task-force duty. It is a crucial relation resulting in synergies/systems' specifics.

A system is traditionally defined, in terms of its *contents*

*in general*, as a round-off whole, *what ever* is the part of reality, which the system *represents* (as its mental reflection). Its parts are interdependent, and it as a whole is interdependent with (something in) its environment. Both attributes of a system - from viewpoints of both its contents and of its mathematical formalization - can obviously be met from *every viewpoint alone*, though. This means:

1. Every selection of a viewpoint **introduces** a *system* as a *mental* (and/or emotional) *reflection* of e.g. any *object* under consideration. No viewpoint alone allows for the *total* holism being the only *real* holism: the word whole means all existing attributes with no selection or omission at all (See: [1, 9]).
2. A system is *holistic* in terms of its mathematically based definition – it consists of a set of components and a set of their relations. But at the same time it is *partial (one-sided)* in terms of its contents (as soon as it is concrete in its content), because a system covers only a part of the really existing whole range of attributes of the really existing object under consideration. We humans are unable to be holistic, at least not as individuals of a normal mental capacity, who do not co-operate with other people, who differ from them.
3. What exists is not the system, but the object under consideration (or outside consideration). And the system is humans' *tool of consideration* of an object with limitation to a selected viewpoint or some of them, or even a (dialectical) system of them. (Objects meet the mathematical definition of systems and have many contents.)

(For details see: [10], and earlier, since 1974, and references therein.)

If the notion system can be, in practice, met from every and each single viewpoint alone, systems thinking **fails to be systemic and is reduced to a systematic one** (See: [11]). It may be more or less equally narrowly oriented as the traditional thinking, specialized in one single discipline or even sub-discipline, interest, viewpoint. See Fig 1.

| General part of attributes = common to all, uniting | System = every entity, no concrete content | | |
|---|---|---|---|
| Group-specific part of attributes = grouping per parts | Systems = | Contents per | sciences / professions |
| Individual part of attributes = dividing per single | Systems = | Contents | per views / choices |

*Figure 1: Dialectical interdependence of the general, group-specific, and individual parts/subsystems of attributes in the case of the notion system*

Thus, for clarity and understanding between the author and the reader one must clearly define what one means with the notion system in the concrete case. This also means that there is a synthesis foregoing the analysis: the synthesis of the (system / DS of) viewpoint/s applied. Two

exaggerations may surface therefore:

• Too much simplification, by limitation into *single* viewpoints / professions / emotions alone.
• Too much requirement that holism be understood as a *totality* of *entirely all* attributes.

None of the two is really helpful for realistic holism of thinking, decision-making, and action in science and practice. Limitation to a single viewpoint may cause a fictitious holism. Tendency to cover all attributes without limitation to a set or system (= network) of viewpoints, or (better!) a DS of viewpoint, may be impossible to make. The above limitations, causing the specialization, are often unavoidable for natural reasons: we humans:

- Have *limited capacities* of both skills and time, and
- Tend to *adapt* our values and behavior to this fact.

But humans still often tend to make an impact **individually, rather than to cooperate** a lot with others who work and think from *different* viewpoints and tend to have different methods, outcomes, resulting conclusions. This includes opinions what is to have priority, to be regarded true rather than false, correct / right rather than wrong, good rather than bad, etc. This is not true of everybody, but it holds of many, experience says. It is a part of the western tradition of a rather analytical education, i.e. fragmented and arguing thinking of specialists. (See: [14]).

Conclusions from this thinking about the **every-day reality / common sense** may include:

- The rather narrow specialization, which has evolved over the last century or so much more than ever before in the known history of humankind, may tend to cause, beside precious insights, an *exaggerated simplification*. A specialist's "system" (= picture of reality) is chosen to describe and/or control a single (part of) reality; it is modeled with words, pictures, languages, mathematics etc. *inside* his or her viewpoint only. Oversights result unavoidably, although depth is likely – inside a part of reality. (See e.g.: [15, 16]; etc.). But narrow specialists are the majority, today, and they decide what is the *common sense – too narrowly, unfortunately*.
- Stressing of a universal interdependence, which has been the Bertallanffy's basis for making of the General Systems Theory, may tend to be *too complex* for most individuals and groups. The total generalist's "system" is chosen to describe (all!?) reality; it is modeled with words, pictures, languages, mathematics etc. with *no focusing* on any viewpoint/s. (See: [1, 17]; etc.)
- A "third" way between the two exaggerations may be needed in both theory and practice.

Systemic (= holistic) thinking may thus stop being *uncommon sense* [2], which it is called because of opposing the overspecialization; it may become a *common sense* **complementary** to the overspecialization. Both holism and specialization are unavoidable and interdependent. How can we make them work together?

## 2. A DIALECTICAL SYSTEM OF SEVEN PRINCIPLES OF SYSTEMS THINKING

Principles of systemic / holistic thinking differ essentially from the principles of traditional thinking. Though, both systems/networks of principles should neither be found enemies nor fight each other: in reality, they are complementary. We humans need both of them. Recently, we have several times published our explanation of what we are summarizing in Figure 2 [10, 18, 19, etc]. All seven notions – principles in the left column of Fig. 2 – are interdependent in order to prevent oversights. Specialists of single disciplines / professions (which are said to be about one hundred thousand) are unavoidable. But many specialists have hard times, if they must enter interdisciplinary co-operation. Empathy capacity is one step out of this problem, and ethics of interdependence of the mutually different ones is the next. (See: [20], for details) Most specialists of a single profession are trained inside their own arena, which brings their attitudes and capabilities closer to the un-systemic thinking (Fig. 2 – right column), or to a partial use of the left column in Fig. 2 – inside their own discipline alone. Specialization makes their life simpler and easier to master, on one hand, but on the other hand it causes them to make oversights. Consequences of the latter make their life tougher to master: failures result from oversights. Over-simplification causes complexity and complicatedness. E.g. less than two percent of inventions become innovations [21, etc]. Therefore: uncommon sense of so far must become common sense – for success to result, including humankind's survival.

Co-operation of several systems sciences and versions of cybernetics may help [18]. Realization of such a general model of systemic co-operation that replaces, to a large extent, the established models of one-sided rather than holistic work is a very tough job. It requires innovation of attitudes and knowledge and preconditions of life (called starting points in DST), including education and motivation. In the creative work (typical of the modern knowledge/innovative society) the *extrinsic motivation* works less efficiently, one depends more on the co-workers' *intrinsic motivation,* and on the managers' capacity to activate the intrinsic motivation [22]. A lot more trouble may be expected especially in societies in which people must rather quickly adapt to the *culture of innovation*, while they are coming from a social environment in which the culture of routine has kept prevailing [23].

| No | Principles of Systems / Systemic / Holistic Thinking (»Uncommon Sense«, so far) | Principles of Un-systemic / Traditional Thinking (»Common Sense«, so far) |
|---|---|---|
| 1 | Interdependences, Relations, Openness, Interconnectedness, Dialectical System | Independence, Dependence, Closeness, A single viewpoint/system |
| 2 | Complexity (& Complicatedness) | Simplicity, or complicatedness alone |
| 3 | Attractors | No influential force/s, but isolation |
| 4 | Emergence | No process of making new attributes |
| 5 | Synergy, System, Synthesis | No new attributes resulting from relations |
| 6 | Whole, Holism, Big Picture, Holon | Parts and partial attributes only |
| 7 | Networking, Interaction, Interplay | No mutual influences |

Figure 2: The Seven Interdependent Basic Principles of Systems / Systemic / Holistic vs. Un-systemic Thinking (as a dialectical system)

The *human resources management* must pay a lot of attention to these conditions [19]. The current international efforts for total business quality, such as *ISO 9000/2000* standard, may need quite a lot of time to really prevail [24]. The modern concepts of *corporate social responsibility* may help speed this process up [25]. All of these findings matter because holism requires *creativity in teamwork*. Perhaps, the suggested case can show a new way out of trouble – see Figure 3. [18].

| Life in the contemporary knowledge and innovation driven society, or suffering from neo-colonizing (of the less innovative ones) resulting from globalization and (huge) differences in innovation level | | |
|---|---|---|
| Cybernetics of Conceptual Systems interfacing society and its individual members, hopefully supporting holism and innovation, including ethics of interdependence in both their routine work and inquiry  → | Humans' objective conditions (needs & possibilities) in interdependence with humans' subjective starting points (values/emotions & knowledge/talents & skills, in interdependence), hopefully aimed at holism and innovation, incl. ethics of interdependence in both their routine work and inquiry | Dialectical Systems Theory providing for education and guidelines for managers and their co-workers to aim at holism and innovation, incl. ethics of interdependence in both their routine work and inquiry  ← |
| Management based on Critical Systems Thinking & Organization based on Viable Systems Model | Mastering work processes by Soft Systems Methodology, Dialectical Network Thinking, and by routine and framework standardization | |
| Corporate social responsibility, adaptation to innovative society, and intrinsic motivation for holism and innovation, including methods of creative co-operation and excellent quality etc. | | |

Figure 3: Interdependence, complementarity, and synergy of several soft-systems theories in a general model of co-operation in inquiry, invention and innovation (as well as routine parts of the work and life processes)

Figure 3 provides a case of application of the Mulej/Kajzer Law of Requisite Holism.

## 3. LAW OF REQUISITE HOLISM – A THIRD WAY BETWEEN FICTITIOUS AND TOTAL HOLISM

In the history of systems theory several authors have attempted such a third way [26]. But nobody seems to have formulated something like a *law of requisite holism,* until we did it a few years ago [27]. It is a next step in clarification what we have meant by the *DS* [10, since 1974]. There may, of course, be very many different opinions, research-based outcomes, and bases of all the different opinions *which viewpoints (and their relations!) are the essential ones.* These opinions may even vary with the same persons. The essential ones are the requisite ones.

The wording "requisite holism" is used as an analogue to the wording used by Ashby who has formulated the law of *requisite variety* in 1964. Briefly summarized, "a 'controller' has requisite variety - that is, has capacity to maintain the outcomes of a situation within desirable states (the target set) - if, and only if, it has the capacity to produce responses to all those disturbances that are likely to take the outcomes of the situation out of its target set." [28, p. 78] One must decide what is requisite. Decisions may vary a lot, of course. (See Fig. 1 again.)

With such a variety and variability, is there still a *scientific, exact, and holistic* opinion? Hardly, if the three given attributes mean that there has been no impact by a human being over the results of his or her or their observation of properties, events or processes in nature; even less so in research concerning society, economics

etc. That's why it does not make much sense to speak of the 1st order cybernetics, except with the purpose of its distinction from the 2nd and 3rd order cybernetics, which are much more realistic (see e.g.: [29, in 20, pp. 333-367]. When one reads texts in which authors use the word "system" with no definition of its content, and maintain that there are laws, both about nature and about society (as aspects of life in this Universe), one may notice that those authors tend to forget about their own and their referenced authors' impacts. Their findings may still make sense, inside their own framework of references. And it is up to the authors to define, what is their frame of references, and how very holistic it is. This opens the door for the Mulej/Kajzer law of requisite holism.

A brief summary of the *law of requisite holism* may thus read as in Figure 4:

> The law of requisite holism says that one needs always to try and do,
> What many, but not all, have the habit to do in their thinking, decisions, and actions –
> Do one's best toward avoiding the exaggeration of both types:
> 1) The fictitious holism, which observers cause by limiting themselves to one single viewpoint
> In consideration of complex features and processes;
> 2) The total holism, which observers cause by lack of any limitation to any selection
> Of a system of viewpoints in consideration of complex features and processes.
> Instead, the middle ground between both exaggerations should be covered,
> Which can be achieved by using a "dialectical system", made by the author/s as a
> System/entity/network/synergy of all essential and only essential viewpoints.

*Figure 4: Brief definition of the law of requisite holism*

On this basis, our definition of holism reads as the following *system (not a set!) of interdependent attributes*:

- The **systemic** attributes belong to the entire whole, but parts do not have them alone; they can be detected in examination of the entire whole as one whole/entity.
- The **systematic** attributes belong to the individual components of the entire whole alone / as entities, but are not specific of the entire whole; they can be detected in examination of the individual parts as separate, smaller wholes.
- The **interdependence / dialectics** between individual parts causes their mutual impacts, expressed as relations including feedbacks; they lead to **synergetic, emerging** attributes; they make the entire whole different from its individual parts as

autonomous smaller wholes; these attributes can be detected in examination of mutual interplays (impacts, feedbacks, etc.) of the parts as well as of their backgrounds and results.

- What is detected and taken in consideration? This depends on **realism** of observers' decisions; materialism / realism instead of the exaggeration in both over-simplification and total holism is a precondition for the outcomes to make sense and to be close enough to the life "out there".

This definition [10, since 1974] tells us that for the requisite holism to be achieved:
1) Both specialists and generalists are needed, as teams that feel ethics of interdependence and co-operate.
2) Their teams include professionals from all and only essential professions / disciplines.
3) Their values are expressed in their ethics of interdependence and practiced in a creative team-work, task-force, session(s) based on an equal-footed cooperation rather than top-down one-way commanding.

How can we make attainment of the requisite holism more operational?

## 4. THE SIX LAWS OF REQUISITE .. AND THE LAW OF REQUISITE HOLISM

A session at ISSS47 (2003) unveiled six other laws using the notion »requisite« in their names. There are nine laws including the notion requisite quoted in [30]. They are found mostly in the chapter presenting Warfield and his Generic Design. Though, Christakis, in his final speech to the 47th conference of ISSS in Hersonissos, 11 July 2003, mentioned six laws that are not always the same as in the Bausch's book. He combined them by steps into an interesting methodology of cooperation, called Cogniscope. [31].

At the same conference a chapter [32] from a book was made available to participants without saying from which book it is taken. In it (pp. 190-191) the same six laws are briefed as responses to six necessary principles for the structured dialogue to take place (which is the basic principle of the technology they talk about) and to successfully deal with complex situations. Here they are briefed:
A. Ashby's Law of Requisite Variety: Appreciation of the diversity of perspectives of observers is essential in managing complex situations.
B. Miller's Law of Requisite Parsimony: Structured dialogue is required to avoid the cognitive overload of observers.
C. Boulding's Law of Requisite Saliency: The relative importance of observations can only be understood

through comparisons within a set of them.

D. Peirce's Law of Requisite Meaning: Meaning and wisdom are produced in a dialogue only when observers search for a relationship of similarity, priority, influence, etc. within a set of observations.

E. Tsivacou's Law of Requisite Autonomy in Decision-Making: During dialogue it is necessary to protect the autonomy and authenticity of each observer in drawing distinctions.

F. Dye's Law of Requisite Evolution of Observations: Learning occurs in a dialogue as the observers search for relationships among the members of a set of observations.

In Mulej's DST (including its applied methodology USOMID) we provide for the essence of all these laws tacitly (see [10] as the newest version / presentation in English; it is based on 45 years of experience and evolution):

• The Ashby's Law of Requisite Variety (in this version) is covered by interdisciplinary composition of the team, and by consideration of circumstances, conditions, and preconditions, i.e. the objective reality in the team's perception of it in the team's work.

• The Miller's Law of Requisite Parsimony is covered by procedure USOMID-SREDIM providing for structured and economical work and cooperation.

• The Boulding's Law of Requisite Saliency is covered by creative cooperation in the procedure USOMID-SREDIM using 1) brain-writing, 2) circulation of notes for additional brain-writing, 3) brain-storming, and 4) shared conclusions, including the very first step (in which the participants select their topic / problem to be worked on; so, it is not imposed over them.)

• Peirce's Law of Requisite Meaning is covered by studying the system/network of processes and picturing it in the programoteque. The latter is a dialectical system of framework models of processes of creative work and cooperation. It is produced and used when strict algorithms cannot apply, because there is also creativity involved, not only routine.

• The Tsivacou's Law of Requisite Autonomy in Decision-Making is covered by the same procedure as mentioned in comment to Boulding's law, and by the roles played by team members for all requisite organizational aspects of the creative process to be covered.

• The Dye's Law of Requisite Evolution of Observations is covered by the same procedure leading through an agreed-upon number of iterations.

Thus, the six laws cover mutually different and complementary / interdependent preconditions for the law of requisite holism to be attained in practice – if used as a

synergy rather than individually. It is our experience that we have attained the same without ever mentioning the six laws. The Mulej/Kajzer Law of Requisite Holism showed up as a later reflection of the long-term experience. Its basis was the application of the notion of the Dialectical System.

The six laws are helpful. They have their common denominator in attacking the hierarchy of command replacing the hierarchies of organization, process, and increasing complexity (see: [20, pp. 83-105] about hierarchies and their distinction), in order to free creativity of the process participants. At the same time they try to avoid the overload in order to free creativity as well, and to enable an organized process of creative cooperation, which authors call a structured dialogue. Thus, of all six laws make easier the attainment of the requisite holism, without losing the real complexity out of sight or getting lost in it. This is very similar to the experience that we have made over goods two decades of our consulting work with USOMID methodology (especially Mulej and his partners in those times) and its predecessors (developed and used by Mulej and partners in organizing and managing students organizations, students journals, sport events, and other events since early 1960s, on the basis of PERT and related team work).

## 5. INFORMATION NEEDS – FRAMEWORK TO REQUISITE HOLISM

The briefed seven laws make a dialectical system of preconditions for the thinking work on design of processes and solutions to problems to be more easily able to attain success. They support team's effort to get closer to the Bertalanffian holism, in a best-case scenario on the level of the Mulej/Kajzer law of the requisite holism of thinking, decision-making, and action. Thus, they support more explicitly the effort undertaken in DST and its USOMID. Still, the very practical issue is open to decision and opinion: what is really requisite / essential?

**The common denominator** of all the (very many) possible cases and examples as well as of all different contents of systems, which all in one way or another meet criteria of the law of requisite holism, are the *information needs, that are addressed by the content of the system(s) / mental pictures of reality (both mental and/or physical), that are tackled from the (dialectical systems of) viewpoints, that are selected by those who introduce systems to (re)present the selected attributes of the selected parts of reality.* See [20, pp. 516-530] for some details.

This is a flexible and realistic response,: all thinking aims at meeting information needs of one's audience.

## 6. SOME CONCLUDING REMARKS

Our conclusions may therefore read:

*1. Bertalanffy was quite right when warning humankind that holism is precondition of survival. But the conflict between unavoidable narrow specialization and equally unavoidable holism is making holism lost a lot. In reality, specialization and holism are interdependent attributes of thinking, decision-making, and action.*

*2. One faces **oversimplification** in the definition of the contents of a system, if the observers / controllers introduce system(s), as an informational representation of the object(s) under consideration, by a selection of viewpoint(s), which is conceived **more narrowly than the information needs are**. One would be better off with a requisite holism.*

*3. One faces the other exaggeration, the tendency toward a **total system**, in the definition of the contents of a system, if the observers / controllers introduce system(s), as an informational representation of the object(s) under consideration, by a selection of system of viewpoints, which includes so many, **too many data**, that information can no longer be extracted. One would be better off with a requisite holism.*

*4. One meets the law of requisite holism, if one **does not exaggerate** either way from (2) or (3), but defines the contents of the system (= mental picture). One does so in the role of its observers / controllers. A requisitely holistic informational representation of the object(s) under consideration is attained, when one selects exactly the **dialectical system (= network) of viewpoints**, which includes exactly that many data and those data, that all (essential, not all in general!) information needs are exactly met.*

This is, of course, much easier to theoretically state and argue, that to practically attain. Humans tend to deal with complexity, which tends to reach beyond their/our own individual and team *capacities*. Besides, humans tend, in the contemporary times, at least, and in the so-called modern conditions of life and work, at least, to want to achieve more than *time* allows for. In addition, *changes* are permanent, and the daily practices need to be adapted to them.

Therefore, *information lacks* are usual (in the case of the requisite variety, they show up as the residual variety, which is not matched by the controllers). These lacks may be bigger and more essential, or smaller and less essential, even unimportant (if the decision, what is included in the DS of viewpoints, matches the situation and the trends of changing just right). Thus, one more conclusion may result:

*There is hardly a finding and/or action that is at the same time exact, realistic and really holistic rather than partial. The actually attained level of holism depends on humans, their values, other emotions, knowledge, talent, skills, creativity, commitment, and perseverance, while searching for information needed by themselves or others for whom they are trying to do something.*

In other words, it is always up to the influential ones to **decide**, which level of holism is the appropriate one. This is a *serious responsibility*. It is naturally impossible, today, to take this responsibility and meet it with a poor or no trans-disciplinary, inter-disciplinary, democratic, creative co-operation of as many specialists as may be essential in the given case. How far toward all these attributes of human behavior we go, depends essentially on the individual / prevailing subjective *starting points*, i.e. the system made of **values, emotions, knowledge (on what and on how), talents, and skills.** They, of course, reflect the **external needs and possibilities,** too. All of them are interdependent.

Thus, what is called uncommon sense [2] because it opposes over-specialization, contains a very common sense: we humans must think about our thinking and face the dilemma: be requisitely holistic or fail (including causing the end of humankind on Earth, world wars, etc, not only bankruptcies, traffic accidents, illnesses, injustice, mistakes, etc). This new (?) common sense might help humankind survive [33]. It might help European Union meet its proclaimed urgent needs [21]. And it might help us revive systems and cybernetics movement.

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