Dear colleagues,
Thank you for your interest in salutogenic communication and coherence regulation.

(F1:)Antonovsky described a 'sense of coherence' as the main factor contributing to healthy development. He proposed that human salutogenesis be understood as a dynamic process between illness and health – leading perhaps to health. And he suggested that the question of how healthy order emerges from chaotic complexity will bring the science of salutogenesis a great step further.

All of these criteria are considered in the model of healthy self-regulation I would like to introduce to you now. I also consider the aspect of interacting open systems in this model of communicative coherence regulation. In the communicative aspect of this model lies the bridge from the theory to our practice as health professionals. So I let me begin with a practical view, for example, as a GP.

(F2:) We are all aware of the pathogenetic orientation in treatment of diseases. The three leading questions are:

1. What disease (diagnosis) is causing the patient's suffering?
2. What is the cause of the disease?
3. How we can treat or manage the disease?

These three questions lead the doctor to extract the disease from the patient and try to make it disappear. The primary goal is thus the disappearance of the disease. This way works quite well in the case of poisons or bullets, some tumors or bacteria. But it doesn't work well for the most patients with chronic illnesses like diabetes, hypertension, arteriosclerosis, depression, stress-related illnesses, and so on.

At least in these cases we need other leading questions that focus the whole human being in their self-regulated communicative relationships to their environment. Salutogenetically oriented questions are thus as follows:

1. What is the patient's problem to be solved? (with empathy for suffering)
2. What is the patient´s attractive healthy goal? (with empathy for approach motivation)
3. What can the patient (and/or we) do to advance them towards their goal? (the search for abilities and resources)

(F3): To interact salutogenically we need some idea or better some knowledge of healthy human self-regulation. That is depicted in this model.

Life revolves around attractors like health, individual goals, coherence and so on. Antonovsky pointed out that 'sense of coherence' is the most important element of

health. We see 'coherence' to be the prerequisite for the functioning of any living system. So coherence is the main systemic, inherent and existential approach goal.

(F4): The well-known researcher in psychotherapy Klaus Grawe wrote in his book 'Neuropsychotherapy" 2004: "The coherence regulation occurs mostly unconsciously and pervades all psychological events. Therefore, it seems to be accurate to speak of a supreme or pervasive regulatory principle of psychological processes."

This model of self-regulation reflects the findings of chaos research and cybernetics too. The word 'attractor' may be found with an analogous meaning in chaos-research.

(F5): For example, in chaos theory, they let a pendulum swing over a magnetic field consisting of three magnets – from all different starting points. One can observe that the pendulum swings chaotically in non-predictable ways around the magnets. Then they marked all the resting points of the pendulum on a graphic. (F6): and got this picture: a wonderful, rather orderly pattern. This pattern – called 'region of attraction' – is in fact predictable.

This example gives us an impression of how dynamic processes are regulated by attractors. In living systems the attractors are mostly very complex and imaginary. In our model of self-regulation the supreme attractor is a very complex multidimensional coherence.

In my opinion we can understand salutogenic and healing-processes such as the healing of a wound only in this way: There is the inherent systemic attractor of wholeness, here the wholeness of the skin, and within a very short time billions of biochemical reactions take place in millions of cells working towards the attractor of wholeness. Chemical reactiontimes would need much longer to regulate and coordinate all of these reactions, and are not able to coordinate it in such an orderly way.

(F7): From this excursion to chaos-research and microregulation, let us return to the coherence regulation of the whole human being.

Salutogenic coherence regulation starts with perceiving the discrepancy between the desired state ('attractor', the goal) and the present state. On a physiological level, for example, one perceives the discrepancy between present blood-sugar level (say 60 mg%) and the desired value of 100 mg%. Hunger ensues and one becomes motivated to look for something to eat. The bigger the discrepancy is, the more meaningful it becomes and the stronger the motivation also becomes. In this discrepancy between desired and present state we find the motivational aspect of meaningfulness – albeit in a slightly different way than in Antonovsky's definition. In the coherence regulation model meaningfulness has a specific place in a dynamic process. Meaningfulness is here not only an emotional issue; rather, it can also be a physical, cultural or spiritual one. That depends on the at a time relevant attractor. Antonovsky was neuropsychologically right in pointing out the emotional aspect of

motivation since that is the strongest psychological aspect of motivation – but not the only one and not always the original one.

In the circle of life-regulation and coherence-regulation the step following the perception of meaningfulness and the connected motivation is that of *action*, the pursuit of the goal - the advance towards the attractor - like health and coherence. This action is regarded as ”manageability”.

For example, every breath we take shows the pursuit of the desired values of oxygen and acidity in our blood. After breathing or eating our organism evaluates whether the action was successful: Am I closer to my desired state? Or was the inhaled air bad for my lungs? Am I still hungry following my meal or am I satisfied? Or do I feel sick? With regard to the evaluation we learn in order to prepare for upcoming similar situations (evaluating thus advances ”comprehensibility”). So if I feel sick after meal I will surely eat something different the next time I´m hungry.

All this self-regulation takes place in interaction with the environment. For this reason we speak from ‘communicative self-regulation’ – a resonating in several dimensions of life.

The same circle of communicative coherence regulation is active in all dimensions of life, the physical/somatic, social/emotional, the cultural/mental and the global/universal/spiritual dimensions. For example, when you feel very lonely you are motivated to look for a partner. When you´ve been with your partner for a time, you evaluate the relationship – and perhaps you will learn to change the communication in relationship.

When you recognize a major discrepancy between your sense of justice and the actual practices in your culture you are motivated to struggle for justice.

(F8): For advancing in our life towards our attractors –towards health - we have two motivational neuropsychological systems: the approach and the avoidance system.

The approach system is connected with our pleasure center, the ncl. accumbens. When we pursue attractive goals, dopamine is released and we get a feeling of pleasure. Maybe we are looking for a delicious meal, a beautiful man or woman or we are thinking about an attractive idea –dopamine gives us the pleasure feeling, from the very beginning of our path towards our desired state. Searching for mushrooms can provides great pleasure for hours on end even if we fail to find a single mushroom.

The avoidance system is turned on when we perceive a threat. Then we are motivated to avoid the danger, be it by fight or flight. The avoidance system is connected with the fear center in the amygdala and further with the stress system. The avoidance system is turned on when facing diseases. Our natural tendency toward avoidance is related to illness too. Thus our avoidance system is stimulated when pathogenetically oriented medical professions emphasize all the possible riskfactors for disease.

How does that happen? For healthy self-regulation we need a good cooperation between the approach system and the avoidance system. Imagine you are in a weak approach mode and have a very active avoidance system - what would this constellation produce? Imagine you awaken in the morning and think about what you will do during the day, and suddenly you remember all the negative things like the rush hour traffic, the uncomfortable air-conditioning in your noisy office and the arrogant boss, etc. You will probably prefer staying in bed. Until you remember that most people dye in bed – so now you have a real problem. Here we see that a low approach mode together with a high avoidance mode marks a very good constellation for depression – or for some other stress-related diseases.

(F9): Thus, we have to recognize that a medical system, which is predominantly pathogenetically oriented and mainly communicates all the risks and dangers of illnesses, can cause and cultivate depression and other stress-related diseases. The need for a predominant salutogenetic orientation in medical systems is obvious if we are to motivate people to advance towards healthy attractors.

Our knowledge with regard to the cooperation of these motivational systems and the chance of their being stimulated by communication has many implications for communication in health professions and also for communication in general.

(F: 10) As a doctor or another counseling health professional we are part of the patient´s cultural environment. We are part of their communicative coherence-regulation. By counseling the patient we are accompanying the patient along the path of self-regulation.

First we attune ourselves by listening to their history (anamnesis), to their suffering, their implicit or explicit healthy goals, their subjective view of life. We are in resonance with the patient.

Then we add our perception (the examination) to their self-perception with regard to the attractor of well-being. The motivation to act depends on the discrepancy between the present state and the desired state. After action (resp. treatment) we evaluate the (inter-)acting elements with regard to their goal. This evaluation leads to our learning and understanding (comprehending) the relationship to the environment.

By asking about a patient´s needs, wishes and attractive goals (positively formulated) we stimulate their self-regulation and activate positive motivational energy.

(F11): Case example: Mr. W., an 51-year-old mechanic, was incapable of working 1.5 years after an operation to treat a back problem. He said that it was more painful than before the operation. At that time he had received the whole arsenal medicine can offer: morphine, cortisone, NSAID non-steroid antiinflammatory drugs, antidepressants, relaxants, physiotherapy, water gymnastics, massages, acupuncture,etc.And in the end: nothing helped. His voice was ailing and accusatory with an aggressive undertone. I asked him whether there was a time in which he felt a little better. He said: No, not really – only when he took the morphine did he have a

little relief from his pain for two hours, but during that time he felt dizzy. I asked him again and again whether he can remember a situation in his daily life when he felt better – maybe not even related to the medical interventions. Then he remembered the warm swimming-pool – in the water he felt better. But when he left the water the pain recurred almost instantly. When he remembered the situation in the water his face became a little clearer and his voice softer. It seemed that there was something like a switch in his mind – like a neuropsychological connection between his thoughts and his attractive feeling of well-being.

I asked him: What's about walking? He answered: He can go a few meters but then the pain increases. I asked him to try walking several times but only a few meters –as far he can go with a good feeling.

When I met him half a year later he told me that he doesn't need the morphine or cortisone any more. Another half year later he stopped the antidepressants altogether, and a few months later I met him in the forest: He had bought a 'quad' with which he drove around the village with pleasure. He didn't seem to be suffering very much. Only rarely he need some NSAID, he said.

Another case from just 2 weeks ago: M.C. is a 23-year-old very athletic and intelligent student of economics in his 6th semester. He accomplished most of his tests quite well, but now he had a very stressful but enjoyable job for the paste 3 months in the 'German Bundesbank' – a nod to his good test results. But then he had to take a test in a subject he doesn't like very much and became anxious and totally blocked. Thereafter he became so anxious that he may fail totally in his study and career. He cannot sleep, wakes up at night several times, thinks about suicide, stands up, looks on the internet for other jobs he can do, if he fails and so on. During the day he is unable to learn for the next test and only thinks and talks about how to avoid failure.

My question to him was: How can you find again your trust – your self-confidence? After three sessions he finally understands that he has to rediscover his good feelings of well-being, his trust in his life in a practicable way. He understands that his problem cannot be solved by avoiding the avoidance but only by strengthening the approach to attractive goals. That he needs to be internally connected with his approach system, with pleasure, approach goals and trust. Approach goals make our life meaningful in the sense of Antonovsky. M.C. said that he wants to play piano, go swimming and visit his girlfriend. He also remembered having a crisis with similar anxieties when he was at high-school. The anxiety disappeared when he had a good time with his girlfriend. By talking about it he remembers his need for security, for feeling safe. Basic needs are positive attractors behind unpleasant emotions.

(F12): To stimulate the healthy self-regulation it is more effective to ask suitable questions than to give advice. Here are some sample questions :

(F13): The salutogenic communication I developed derives from the Autonomy-Training of Grossarth-Maticek, who did research from 1975 through 2000. He found that a communication to stimulate the healthy self-regulation (which he called "Autonomy-Training") could reduce the mortality rate by about 30% over a 20year

period – it only needed 1 to 5 dialogues. In his inspired work he intuitively worked out the synergetic cooperation between the approach and avoidance system. He called it – corresponding to the state of the knowledge at that time – pleasure and inhibiting pleasure mode.

(F14):In summary, for a good practice leading towards a salutogenic society, salutogenic communication focuses on

A. Perceiving – (regarded to 'meaningfulness'):
    1. Promote self-perception
    2. Clarify meaningful personal goals
    3. Stimulate the approach system
B. Acting – (‚manageability'):
    1. Enhance competences and other resources
    2. Find a shared decision with regard to approach and avoidance behaviour
    3. Support activities (also by imagination)
C. Evaluating / learning – (‚comprehensibility')
    1. Was the acting done coherent with regard to the attractive goal (i.e., will it solve the problem / enhance the feeling of coherence)?
    2. What issue can be learned and understood?

Focusing these phases of coherence regulation we are in a systemic resonance with our patient or client.

(F15): Joachim Bauer, a psychiatrist and brain researcher pointed out: „Finding resonance in others, giving others resonance and observing, that the resonance is meaningful to them, is a basic biological need - at least we can verify this for higher forms of life. Our brain is … neurobiologically well-calibrated to good social relationships."
Joachim Bauer (2005): Warum ich fühle, was du fühlst. pp. 169

Thank you very much for your attention.

[Finally, we can take a look at how health professions use this model of communicative coherence regulation. So we can see how different health professionals use different methods to provide different contributions to the salutogenesis / healthy development of their patients and clients.] (F16)