



Anke Beumann, Theo Fehr

# **When Coincidence makes Sense**

**Problem solving "out of nothing"**

Collective field of consciousness and coherence

I P P M

Institute for Personality Psychology and Meditation



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**Problem solving "out of nothing"**

Collective field of consciousness and coherence

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## Foreword to the second edition

We have made some changes to the first edition.

We had originally copied references from Volume II and now limit ourselves to the literature actually used in Volume III.

Some passages from Volume II belong thematically more to this volume. We have therefore now added them here.

*Some remarks on the measurements with the Random Number Generator – see last chapter:*

The RNG diagrams in the appendix are probably a first broad attempt to show the interdependence of events of different character and the quantum level of the zero-point field. The RNG diagrams in the appendix are a first rough attempt to show the correlation of emotional events of different character with the quantum level of the zero-point field. Strong emotions mainly lead to the increase of the generated random numbers – the “ones”, meditative calm states are primarily connected with the decrease of the curve because of the predominance of the “zeros”.

## Introduction

This work is a supplement to our book on "Coherent Breathing - the coherence-transcendence-cycle" (Volume II, in press). Volume II contains our several decades of experience with breathing and meditation and the detailed description of our studies of the associated states of consciousness, which we accompanied and documented for several years with experience protocols and measurements of heart coherence (heart rate variability).

The text published separately here contains a great many diagrams. They would have overloaded volume II. We have therefore separated this volume as a separate publication.

Volume I deals with the philosophical foundations of the methods we specifically use. We mainly refer to the nondualistic Vedanta tradition - Advaita-Vedanta - and the *yoga tradition of Patanjali*, which is currently gaining increasing popularity worldwide.

In this context we would also like to mention the likewise *nondual Kashmiri Shaivism*. Its last exponent was Swami Lakshman-Joo. Co-author T. Fehr was allowed to experience him personally in Kashmir in 1969. *Coherent Breathing* is based especially on Swamiji's elaborations on the spiritual role of breathing in *Vijnana Bhairava Tantra*.

Finally, in Volume I, the examination of various forms and traditions of *Buddhism* led us to further fruitful insights and a relativization of the supposedly incompatible contradictions (Sankara) between Vedanta and a core idea of Buddhism - "emptiness".

In Volume II we present the concrete approaches we use, which can help to find one's own way through the multicolored facets of philosophical constructs with the help of direct experience.

## **Purna – the fullness**

“That (the Absolute) is full,  
this (the Relative) is full,  
From that (absolute) fullness comes this (relative) fullness,  
If you take away this fullness from that fullness,  
Only fullness remains”

*Isa Upanishad*

The Isa Upanishad of the Vedas briefly and succinctly describes the real essence of ultimate reality.

"Purna - 'fullness', the synonym for the highest, absolute being - thus makes its first appearance as a philosophical concept. The ultimate reality is beyond the limited reach of the human mind.

The true nature of purna is beyond worldly cognition. Human intellect is incapable of perceiving it. What is known as abundance, purna, never changes. This perfect fullness remains as an imperishable state of self-luminous existence, always and everywhere as an undivided uniqueness of being. Creation and its dissolution are based on it.

The highest reality is basically "one without a second", existing in itself and independent. It is always an "unchangeable (integral) whole". Unchangeable and formless, it seems to be constantly changing and taking on a form at the same time, featureless and yet with all properties, far and near at the same time, all-pervading and transcendent at the same time. All contradictions dissolve in its being and everything that emanates from it. It also has the essence of all-embracing fullness. Purna is form and formless at the same time, it has attributes and is attributeless at the same time, it is near and far at the same time, immanent and transcendent at the same time, non-dual and undivided. The source and what it brings forth remain one and the same. Whatever is added to purna - the true nature of purna does not

change. Accordingly, purna does not have a gradual development, unfolding in the future, passing through the present and flowing like a river towards the past - that is not purna. For this reason it is beyond evolution. (according to Gopinath Kaviraj, 2005)

"(purna) can be compared to sunya (zero), which symbolizes infinity in mathematics. Adding any addition does not change it, as it remains un-changed infinite. Thus, the highest reality, Brahman, is the integral fullness that results from its self-sustaining independent essence .... Purnatva - the concept of fullness - is consistent with the philosophy of non-dualism; it is therefore found as a guiding principle in the metaphysical thoughts of the schools belonging to non-dualist philosophy." (Deba Brata Sen Shar-ma, 2005).

This non-dualistic concept is not compatible with dualistic or pluralistic systems such as Sankhya - the yoga philosophy - or Nyaya-Vaisheshika.

Sankara's non-dualism follows the path of strict negation (Neti - Neti: Not this, not this) and denies the existence of anything other than brahman, the only reality on the transcendent plane. Other non-dualistic schools, such as Kashmir Shaivism, base their nondualistic approach on affirmation and integration. They expand the scope of non-dualism to include the diversity of the world and then integrate it into the unity of ultimate reality. Thus, they conceive of ultimate reality as expressing itself simultaneously in two forms-as an all-pervading cosmic reality and as a transcendent reality-all at once. Their emphasis on integration as the core principle of this philosophical thought is reflected in their concept of "fullness" (purnatva), which constitutes the essence of ultimate reality. These schools of thought see the diversity of the world as real as the unity of transcendent reality. (according to Deba Brata Sen Sharma, op. cit.)

## **Coherence and synchronicity - how we are connected with each other and with the whole.**

### ***Twenn Zufall Sinn machtWennWennhe history of synchronicity research***

It was the famous Swiss psychiatrist Carl Gustav Jung who was the first to deal extensively with synchronistic phenomena. He describes one of his strangest experiences in his book (C. G. Jung, 1990):

The problem of synchronicity has occupied me for a long time, in fact seriously since the middle of the twenties, when during the investigation of the phenomena of the collective unconscious I again and again came across connections which I was no longer able to explain as coincidental group formation or accumulation. It was about "coincidences", which were connected in such a way that their "coincidental" meeting represents an improbability, which would have to be expressed by an immeasurable size. I mention only by way of example a case from my observation: A young patient had a dream in a decisive moment of her treatment, in which she received a golden scarab as a gift. I was sitting, while she told me the dream, with my back against the closed window. Suddenly I heard a sound behind me, as if something was softly knocking on the window. I turned around and saw that a flying insect was bumping against the window from outside. I opened the window and caught the animal in flight. It was the closest analogy to a golden scarab that our latitudes could patterns, namely a scarabaeid (leaf-horned beetle), *Cetonia aurata*, the common rose beetle, which had apparently felt compelled, contrary to its other habits, to invade a dark room at that very moment. I must say that such a case has never happened to me before or since, just as the patient's dream at that time has remained unique in my experience.

The patient was deeply moved and cried. Her therapy took a different, positive turn as a result.

The impression solidified in Jung that coincidences could have a deeper meaning. He defined:

*I use the general concept of synchronicity in the special sense of temporal coincidence of two or more events not causally related to each other, which have the same or similar meaning.*

Synchronistic events are not repeatable, but unique, singular. Such events elude classical scientific and experimental investigation. For them it is valid that the investigated event leads to the same result under the same conditions with repetition (replication). Therefore classical synchronicity experiments lead with repetition to the fact that the synchronistic effect in question "creeps up", the researchers speak of a "decline". (Lucadou, Römer, and Walach 2007)

To get to the bottom of the mystery of synchronistic phenomena, we need "a different way of thinking." *Sponaneity, associative ideas* could be a way to get to the bottom of things, since they themselves are synchronistically entanglement-correlated.

### C. G. Jung and Wolfgang Pauli on synchronicity

The famous physicist and Nobel Prize winner Wolfgang Pauli irritated his colleagues by the fact that valuable physical equipment broke and experiments failed in his vicinity as a result of his psychokinetic charisma. His colleague at the University of Hamburg, the experimental physicist Otto Stern, therefore expressly forbade Pauli to visit his institute out of concern for the valuable equipment.

Once Pauli sat at the window of a café and brooded, his emotional problems and the color red playing a role. For a long time, he stared spellbound at a car right in front of the café, which



then suddenly caught fire and burned down. Pauli himself believed in his effect. He already felt the disaster beforehand as an unpleasant tension, and when the foreseen misfortune - another person! - he felt noticeably liberated and relieved. The "Pauli effect" can certainly be understood as a synchronistic phenomenon as described by Jung. (Enz, 1995)



Wolfgang Pauli (li) C. G. Jung (re) (Quelle IPPM)

Pauli was considered a genius by his colleagues - sometimes they called him *the terrible Pauli* because of his razor-sharp intellect, because he sometimes blatantly thwarted their hypotheses. He had his problems with women, which is why he turned to Jung for therapy. Jung referred him to one of his therapists.

The two exchanged ideas about the phenomenon of synchronicity over many years. For Jung these were - as already mentioned - phenomena occurring together in time or space, which cannot be explained causally, but which have a meaningful connection. Synchronicity was for both a nature-immanent organizing principle, which referred to meaningfulness and teleology

(purposefulness). It connected spirit and matter in such a way that neither spirit can be derived from matter nor matter from spirit. (Ewald, 2010)

Over the decades, the *non-local entanglement of quantum states* became more of a focus for quantum physicists. Two particles of matter form such a close bond that they retain *entanglement* no matter how far apart they are. It is expressed in the fact that a change of the quantum state of one particle, immediately and faster than the speed of light, causes a corresponding change in the other particle. This again contradicts the theory of relativity, according to which nothing can be faster than light, which is why Einstein called it a "spooky action at a distance", which was uncanny to him.

This quantum entanglement can be regarded as the smallest unit of synchronicity. We will go into more detail about quantum entanglement in the chapter "Quantum Mechanics and Consciousness - David Bohm".

A telepathic experiment shows correspondences on the psychological level:

Two subjects, Jack and Jill, sit in separate, soundproof and electronically shielded rooms, each in front of a screen. From two stacks of three identical pictures, one picture each is selected by a random procedure and one is shown to Jack, the other to Jill on the screen, so that they view the pictures simultaneously. They both decide whether they are looking at the same image as the other or whether they are looking at different images, and signal their decision to a recorder. The experiment is repeated about 1000 times. Result: Jack and Jill each answer "yes" in 50% of the trials and "no" in 50%, according to random probability. But in the cases where they have the same picture in front of them, their answers agree 77% of the time, while according to the random principle it should be the same 50%.

This is a psychological entanglement and points to a synchronistic event. (according to Ewald, op. cit.)

“Entanglement” and “synchronicity” are terms of a new way of thinking, which goes beyond the previous understanding of reality.

The non-causal correlation, as it appears in the entanglement, is a methodically and experimentally tangible part of this reality. Pauli and Jung saw in synchronicity a universal building block of this new reality and tried to concretize it by examples. They were also already aware of the great span between synchronicity with naturally-general features and the gestalt-like-unique forms of synchronicity, as they are expressed above all in spontaneous experiences. (Ewald, op. cit.)

When different parts of a whole are mutually connected, this is also referred to as "coherence". It is reflected in the correlations between the parts. The concept of entanglement, according to which a prediction of non-local and instantaneous effects between subatomic particles is possible, no matter how far apart they are, can therefore also be called quantum coherence. Walach and Römer (2011) refer to this as "generalized entanglement" in the context of the Unified Quantum Theory and Generalized Nonlocality they developed. Coherence is based, among other things, on non-local entanglement correlations, i.e., non-causal relations. This means that entanglement correlations (correlations) cannot be attributed to signal transmission between the observed features. "coincidence" is usually the commonly used term for such events - see the examples from the reality of psychological practice in the next chapter. Coherence and correlation are formal features of the meaningfulness of syn-chronistic coincidences.

We find coherence on different levels: At cellular, physiological, psychological, social, economic, national levels, etc. According to unified quantum theory, analogous structures can

therefore be applied for the description of entangled phenomena in different disciplines (biology, psychology, chemistry ...).

Entanglement correlations can only exist between "paradoxical", mutually incompatible (incompatible, complementary) features. These can be correlations between parts of a system, but also between part and whole.

Global	Local	Area
Mercy	Justice	Law
Unity	Separation	Development
Wholeness	Part	Systems theory
Community	Individual	Society
Rest	Activity	Meditation
„Mother Nature“ (Magna Mater)	Concrete Environ- ment	Nature

Table 1: Possible and suggested examples of complementary relations outside physics (excerpt after Walach and Römer, see text).

We propose to understand entanglement correlations psychologically in a figurative sense as the "heart aspect" in the game between *head* and *heart*, whose incompatibility is part of everyone's experience. To the intellect are to be assigned "distinction, analysis, separation, splitting, contrast, complexity", to the heart aspect "unification, unity, becoming one, one-factor, reconciliation of opposites".

Wolfgang Pauli, in a paper on Kepler, said "It would be most satisfying if physis and psyche could be conceived as complementary aspects of the same reality." This *consciousness-transcendent timeless unity behind the world of multiplicity* Jung, borrowing the concept of "one world" from the alchemist Gerhard Dorn (c. 1600), called *unus mundus*. Thus the dualism of

psyche and matter would be abolished in a comprehensive third. (Primas, op. cit.)

According to Primas (1995) the division of the *one* primordial world is inevitable, because without this discrimination no cognition can take place.

In reality, it is not a divided world, because the united human being is confronted with an "unus mundus". He must divide this one world in order to be able to know it, without forgetting that what he divides is always the one world, and that the division is a precedent of consciousness. .... (on the concept of unus mundus:) We have ... every reason to assume that there [is] only one world, in which psyche and matter are one and the same thing, which we discriminate for the purpose of knowledge. (C. G. Jung, quoted from Primas, 1995)

Primas sums up, "Primordial reality is undivided, *we* have to divide it." (Primas, op. cit.)

Jung and Pauli exchanged letters over decades in which they tried to trace the background of synchronistic phenomena. Unlike Freud, Jung recognised that the unconscious does not only consist of the repressed and that it contains several levels. On the deeper levels we encounter an unconscious of the family, then of the larger group, the people, the cultural community - for example, the people of the Occident. Still below this is the level of the *collective unconscious*, the basic structure of the human soul. Jung said that in the end we do not know how far this depth reaches. It connects people with each other, but also the individual with the environment.

This special psyche behaves as if it were *one* and not as if it were split into many individual souls. It is non-personal. (I call it the "objective" psyche.) It is the same everywhere and at all times. .... Since the "objective psyche" is not limited to the person, it is also not limited

by the body. It therefore manifests itself not only in the human being, but simultaneously in animals and even in physical conditions ... I call these latter phenomena the *synchronicity of archetypal events*. For example, I go for a walk in the forest with a patient. She tells me the first dream of her life, which made an indelible impression on her. She had seen a ghost fox running down the stairs in her parents' house. At that moment, not forty metres away from us, a real fox comes out from under the trees and walks quietly along the path in front of us for a few minutes. The animal behaves as if it were the partner in the human situation. (C. G. Jung, quoted from Wertenschlag-Birkhäuser, 1995)

Through observations of synchronicities, i.e. meaningful coincidences of inner perceptions with external events, Jung later came to his assumption that the collective unconscious forms a unity *beyond the distinction between psyche and matter*. According to Jung, the collective unconscious contains the wealth of experience of the entire history of mankind and has a constructive, ordering function. Jung and Pauli originally referred to this level as the "arranger".

Jung's archetypes as such "arrangers" are inconceivable structures and possibilities of experience that manifest themselves as symbolic images. The best known are Anima and Animus, deeper lying than the level superior to the archetypes is the SELF as an ordering principle.

Atmanspacher (2012) speaks of *dual-aspect monism* (monism = a single basic principle for all phenomena) in Pauli and Jung. He combines an *ontic* (being-related) monism, which is mirrored by a *psychophysically neutral background reality*, with an *epistemic* (knowledge-related) *dualism* of the *mental* and the *physical*. Spirit and matter appear as *complementary aspects* in Pauli and Jung: Incompatible with each other, but *both*

necessary to exhaustively describe the *wholeness* of the mind-matter system. Pauli writes to Jung:

"It would be most satisfactory if physis and psyche could be conceived as complementary aspects of one and the same reality." (after Atmanspacher, op. cit.)

Jung coined the term *unus mundus* - *one world* - for this.

Undoubtedly, the idea of *unus mundus* is based on the assumption that the multiplicity of the empirical world is based on an underlying unity, and that not two or more fundamentally different worlds coexist or are intermingled. (Jung, according to Atmanspacher, op. cit.)

In a very analogous way, Bernard d'Espagnat (2006) introduced the concept of the *Real*, an independent original reality beyond the mental and material - i.e. neither mental nor material. It is "veiled" and not accessible to direct empirical experience.

According to the conception of veiled reality, the *real* lies before the split of mind and matter. This expression refers, of course, to the *co-emergence ... of consciousness and empirical reality* (emergence - the emergence of new properties / structures of a system as a result of the interaction of its elements).

Jung relates *unus mundus* to the inner unity of the individual self.

This is strongly reminiscent of the "non-duality" philosophy of *Advaita Vedanta* (A-Dvaita = non-duality), which has been handed down for thousands of years on the Indian subcontinent, in which *Atman* is the "soul spark" of the SELF in the individual human being and *brahman* is the total of the underlying Absolute (consciousness) - *Atman* and *brahman* are not separate.

The inner-psyche dissection is replaced by a dissected world-view, which is inevitable because without this distinction no conscious cognition would be possible. In reality, however, there is no dissected world: for a

unified individual there is an "unus mundus". He must un-distinguish this one world in order to be able to comprehend it, but he must not forget that what he distinguishes (analytically splits / separates) is always the one world, and distinction is a prerequisite for consciousness. (Jung to Pauli, according to Atmanspacher, op. cit.).

The division of the *unus mundus* leads to non-local correlations and coherences between the individual areas that have now arisen, which bear witness to the original wholeness.

What conditions must *synchronistic events* fulfil?

1. a pair of synchronistic events comprises an inwardly conceived and an outwardly perceived component.
2. a causal relationship between the events is absurd or unthinkable.
3. the events correspond with each other through a common meaning ("sense"), usually expressed symbolically.

Pauli spoke of an *acausal order* and considered synchronicity as a *teleologically oriented finality* (goal-directed process) of an acausal order that cannot be intentionally generated. Synchronistic phenomena cannot be captured in a law-like manner, since they cannot be reproduced. Therefore, they cannot be understood or explained with the familiar scientific ways of thinking of the Aristotelian - Newtonian tradition of thought: We need an openness for new ways of thinking and perception !

Freud's free association deliberately eluded reflection and pondering, and spontaneity is more likely to lead to insight than systematic analysis, which tends to "veil" the phenomena we are looking for.



In the chapter on quantum mechanics and consciousness we will deal in more detail with the mysterious background and laws of synchronistic events.

### ***Synchronicity and spontaneous healing in psychotherapy***

#### **1. Case report on synchronicity**

##### ***Report Therapist***

The twenty-eight-year-old patient comes to see me because of "being aggressively annoyed", frequent crying, nightmares with wolves, restless, having been "punching through" for months to the point of exhaustion and collapse. She works in a hospital on the XXXXX station. There are problems with the doctor in charge of the station - already reported to the hospital management by some of her colleagues.

The doctor is competent, but "inhuman". He leaves patients in pain to the nurses on duty on the station, who then administer analgesia themselves. My patient "can't stand it". She is also a perfectionist, always under pressure and has high moral standards for herself.

*Therapy goal:* To become stable, she "took the wrong path", wants to find the right career path. Wants to learn to set limits.

*Diagnoses:* severe stress reaction; depression; obsessive thoughts, compulsive brooding.

She has learned *autogenic training* (AT) and practices it regularly, usually falling asleep. When she has nothing to do with her boss, she feels fine and is enterprising, sometimes over-activated.

The family doctor blames further sick note on the neurologist she consulted, who promptly prescribes her Tavor after a depressive crash with crying fits.

She gets a lawyer to explore her chances of taking action against the head doctor; talks with the staff representatives, the ward manager and the nursing staff do not help. She is offered a change of ward, but only under a new fixed-term contract ... the current one is open-ended.

*2 months after the start of therapy:* we consider career alternatives: optician, teacher for nursing professions, etc. She takes care of further training and other jobs, continues to attend to her duties on the ward.

In between, a crisis in the partnership becomes an issue and there is a separation, then a new partner - this becomes the focus of the therapy.

*8 months after the start of therapy:* she finally stops working at the hospital and finds a job some distance away in an institution for the care of severely disabled people. The work is completely different from that in the hospital, the patients just need to be "kept busy", which is quite easy compared to the previous job. At the beginning, she got along well with the well-rehearsed team there and felt comfortable.

Since AT was not enough and she heard good things from other patients, she learned Vedic (Transcendental) Meditation (TMi).

For a while we work in retrospective (childhood, parents, siblings etc.) where some accompanying issues have to be worked out.

The new partnership ends after three months. We start with body-psychotherapeutic work (bioenergetic sensu LOWEN). The patient detaches herself from her parents and a brother with drug problems.

*14 months after the beginning of therapy:* The new job becomes a problem - half of the staff likes her, the other half just doesn't and starts to mob her. The employment contract expires, the probationary period is over.

We discuss career options: Pastry cook, stage designer, wellness and SPA - trainer, teacher in the health sector; she fears to get into the danger of being overtaxed again by outpatient jobs like physiotherapist, eye clinic, pain practice. Still having problems deciding on a direction. The professional orientation is now moving towards art, flowers, painting. She slowly moves away from the helping professions because of the danger of being overwhelmed in view of her "over-conscientiousness", her perfectionism and the then following compulsive tension and over-responsibility.

She realises that she likes to fall in love with guys who nag at her. She is not interested in nice guys, they are boring to her. Soon there is a new partner, a "nice and suitable" one.

*20 months after starting therapy:* she gets a new job in outpatient care, then later has the prospect of working as a "wound manager". She cannot plan a new training, the employment agency does not grant her any more retraining because she already has two full training courses (dietician, nurse).

After another five weeks, she is hopelessly overworked in outpatient care - rotating shifts and poor pay. She wants to try to get by, otherwise the next change of profession is already pre-programmed.

*End of therapy* after completing 60 hours of sessions. -

*26 months after the first start of therapy, half a year after the last end of therapy* - the patient returns to the practice in despair, a new extension of therapy is necessary. Basically unchanged situation: Due to her duty-obsessed-perfectionist professional practice in the health sector, she is constantly overstrained and beyond her limits. I tell her right at the beginning of this part of the therapy that after all this time (more than two years!) and the therapy she has done (by far not everything could be listed here), I myself don't know what else we can sensibly do. But she is welcome, knows the practice procedures and offers, and

is welcome to reintegrate. And once again we live "on hope". For the solution of the professional "standing on the hose", a "deus ex machina" is needed. An open situation.

She still works in outpatient care at Caritas: "hard", "brutal", patient is completely exhausted. Too little sleep, not even time for daily meditation. Most recently "on duty 19 days in a row". Hardly any free time. No more meetings with friends possible. Condition is tearful, "finished". In contrast to the previous therapy, much anxiety. Sick note because the stress had been beyond the subjective limit for a fortnight. Her boyfriend broke up with her when she was off sick, although he "still loves her very much" - but her love had simply "overwhelmed" him.

Symptoms now - anxiety that takes her breath away, nausea after eating, fear of the future - she has to vacate her flat.

*28 months after the first start of therapy: rehabilitation / vocational rehabilitation* is on the cards. A change of job to a creative job such as florist is considered. I tell her about some patients in this profession - overwhelmed, tying flower arrangements until late at night. First she tries to get another shift distribution with her colleagues - a maximum of 3 days double shift (with a maximum of 6 hours sleep / or break... so lack of sleep). She tries this for 5 days and it doesn't work. High level of sickness with colleagues at the workplace. She applies to the employment agency for vocational rehabilitation. She is also thinking of taking part in an "anxiety self-help group" outside the practice.

Hamster wheel in her head, old teasing - "fat-small-ugly" - from school come up again in meditation and begin to dissolve.

She gives up her flat and moves in with a friend. The VDK - the largest social association in Germany - advises her and recommends that she should not talk openly with the health insurance company or the job agency, but instead establish a GdB (degree of disability) - at the age of 31!

She does 2 internships - an internet company and a dental laboratory. At the employment agency she "hangs in the shaft" - no reaction to calls.

*29 months after first starting therapy, 5 months after resuming psychotherapy:*

Her GP agrees to write her off sick until the end of the year (which is still six months away).

*She rejoins the circle of fellow patients, there are some new ones. As usual, she gets involved, talks about her two-year therapeutic odyssey and the difficulty of getting out of the health professions and finding a suitable career field for herself.*

*After a few minutes she closes and after a short break a young fellow patient, unknown to her so far, asks: What about selling gold? The patient reacts puzzled. Excuse me? He says, we are a young team and sell precious metals online. We can't manage it any more, it's too much for us and we're looking for a new employee. Would she like to join us? She could just come and see for herself for a few days and see if it would be something for her.*

*That's what happened, both sides liked it and after returning from rehab she got an employment contract with the option of training as an office clerk later.*

There were a few final individual meetings with me at longer intervals, but no further therapy.

*34 months after the first therapy started, 10 months after the start of the last therapy phase, the patient was symptom-free and stable and we could end the therapy with a good feeling.*

Years later, I heard from third parties that she was doing well, coping well with her job and had a stable, functioning partnership.

This case was more than a decade ago, I am now contacting her, first I have to find out her address and telephone number.

*The patient's own report:*

"At that time I worked in a XXXXX ward. The senior doctor treated his patients like test subjects. After my reintegration, there were supervisions with all the wards that had to do with the senior doctor. Many others also suffered greatly from his cold manner. From then on, all situations that were questionable or inhumane were written down in a book provided for that purpose. This was then sent to the management, who confronted the specialist and advised him to apply for a job.

As far as I could tell, the specialist was very shocked by this. Apparently he was not aware of how he was behaving. He is said to have undergone therapy and become a nice doctor in YYYYYY.

The GP had prescribed me the drug (paroxetine) at the time. However, I had never taken it.

I had not heard anything about TM at that time. I had first read up on it on the internet and had read some pretty bad things about it. That's why I didn't want to learn it at first. On your recommendation, I nevertheless decided to take it and have never regretted it.

I was only in the gold trading company for about half a year. The economic situation worsened and gradually all employees except one were laid off. After another three years it was completely closed.

After that I worked for three years in a tax office at the reception desk, where I became increasingly familiar with the work and later took over a large part of the correspondence as well as the administration of deadlines and appointments. Because it didn't involve people, I found it easier to distance myself.

In 2013, I married my current husband. This is the man who had initially left me at the beginning of the second round of therapy. The situation with a possible mental illness had scared him at

first. But after he realised that this did not change the essentials, he gave us a new chance.

In the meantime, we have a sweet five-year-old daughter. For financial reasons, I am again working 35% in ambulant care. I keep practising what I learned from you, e.g. the accepting (body) feeling/perception, I pay attention to my warning signals and set clear limits when it gets too much for me. I consciously allow myself mistakes - in order to practise this - nothing that harms others. I also make sure I get enough sleep. I get along very well in the team there.

As needed, I increase the meditation, which I certainly don't do as regularly as I should. Through it I have learned to really "switch off", i.e. let go of all thoughts. I have learned to accept my feelings and myself, not to suppress them. There are individual days when I feel sad for seemingly no reason, or I get minor anxiety attacks. But I am no longer afraid of them. I experience these feelings consciously and don't see them as negative. If I have to cry, I do so, because afterwards I feel better again.

The time of therapy and change was hard, but it was worth it. I'm sure I wouldn't have learned many things otherwise and would never have been able to build up such a balanced, equal relationship with my partner. I would have continued to misjudge my limits and possibilities and simply functioned instead of living.

I have wanted to thank you for that for a long time. But there was such a long time in between that I thought you had long forgotten me.

Maybe there will come another difficult phase like this one. But then I will know what I can do.

I hope that I have been able to contribute to this study. If you need anything else, feel free to say or write."

## 2. Case report on synchronicity

### *Report Therapist*

The patient - an engineer at an official testing and inspection body - came to see me for the first time in autumn 2012. She complained of excessive demands, sleeping problems (falling asleep and sleeping through the night). The "engine was no longer running", she was "run down". She felt tense, nervous and suffered from self-doubt and lack of self-confidence. For more than a year, she had been suffering from exhaustion and had crying attacks.

She said the *therapy goal* was to "cope better with stress" and to "recognise the point at which she had to take herself back".

A symptom checklist shows: A maximum value in compulsiveness, significantly increased values in depression and anxiety and slightly increased values in aggression and paranoid (suspicion, mistrust).

*Diagnoses:* Depression with psychosomatic disorders; acute stress reaction; other psychosomatic disorders; sleep disorder.

After a long period of sick leave, she had just started reintegration, which I recommended to discontinue in view of her condition with fits of crying. The patient complained that her wishes were not taken into account by colleagues and superiors.

She is very doubtful about continuing her work at the same place of work and sees the need to change something. However, she is very afraid of this because her previous job offers her security and she does not see any alternatives for herself in her agency. For safety's sake, she is doing a longer-term private further training course in order to gain higher qualifications.

At the beginning of the therapy, I advise the patient to do regular sport. In addition, I ask her to learn about meditation (Vedic meditation, identical to Transcendental Meditation, but independent of the TM organisation). The patient decides to learn



meditation. The patient reliably does both: Sport three times a week for just under an hour, meditation daily in the morning and in the evening for 25 minutes each. A few weeks later, she no longer has problems sleeping.

She "wants to let the necessary change in her career come to her", but she does not make much of an active effort. She realises that she has to change her behaviour at work - "but not immediately". In between, she makes a firm decision not to return to the job.

*Six months* after starting therapy, the patient begins reintegration. The first signs of excessive demands and defensive deficits as well as an inappropriate and symptom-promoting assumption of responsibility for files that had been left lying around and unprocessed soon appeared. She now completely blocks the thought of change and begins to doggedly and compulsively bite her way through. She refuses a sick leave recommended by me.

The accidental death of her fiancé many years ago plays a role in the background, as a result of which she impresses on herself that she "must now struggle through and manage everything on her own." Today, her main concern is not to become dependent on anyone. She does not dare to change her job because of her anxious concern for security.

*Nine months* after starting therapy, she sees the need for change, but "still needs time". A little later, she is working full time again, "so far it's working". Almost a year later, the patient seems "alert and relaxed". She thinks meditation helps her a lot.

*One year* after starting the therapy, she is obsessive about her work, feels annoyed by certain customers, one of her colleagues is absent due to illness and the work is distributed among the remaining colleagues. The patient wants to continue the therapy mainly because of the still pending topic of "job / professional change". She still does not see any occupational alternative.

*15 months* after the beginning of therapy: A big building project is started in the city, with the main topic of her special further education, which is now finished. She persistently refuses the "homework" to get some non-binding information there, since she "fits in" there.

*16 months* after the start of therapy: The patient becomes unreliable in keeping her therapy appointments and does not show up for the appointment without cancelling it.

*17 months* after the start of therapy: I ask for a final meeting because of the patient's stuttering and failure to keep her appointments and fulfil her behavioural therapy "homework".

*20 months* after the start of therapy: After a few contacts, the patient reports an increase in her original symptoms, but still refuses to change anything. The therapy is then terminated.

*6 years later*: The patient calls again and reports that she is again suffering from a depressive episode and has been on sick leave for 5 weeks. The triggers were, as years before, overwork / excessive demands, fears of making wrong decisions. However, since the end of the previous therapy, she has continued meditation regularly over the years.

We resume psychotherapy.

*Diagnoses now*: renewed depression with psychosomatic involvement; generalised anxiety disorder; obsessive-compulsive disorder; acute stress reaction.

The patient first reports on what happened in the intervening period and the last few years. Things had been better for a while. Then she was overtaxed again, despite holidays, meditation and sport. Two months before the current resumption of therapy, she had reached the point "where nothing works anymore". She is sleep-disturbed again. Now she has reached the point where she has to change something. She has been on sick leave for almost three months. A company integration management programme is underway with the focus on "pushing" and "supporting". We

discuss three different possibilities of change within the agency and ask her to find out about one of them. A dream confirms to her that it does not make sense to go into reintegration now.

I suggest a time-out, which the patient implements with a ten-day stay on an island. She returns from the time out visibly freed / freer, less tense, less compulsive.

The sick leave is continued for another 3 months until the spring of the following year. The decision not to return to her previous job is made (as it was 6 years earlier).

The authorities suggest two other departments to which she could transfer, both of which are no "wish fulfilment" for her. As in the years before, she is (fearfully) concerned about her *security* and *independence* from her husband.

She recounts her years of therapeutic odyssey in a circle of other patients, in which she is now participating for the first time. She repeats the familiar arguments she has been making repeatedly for many years about her reluctance to change and her still unwillingness to change.

I do not react to what is said, leave it uncommented, remain silent to allow feedback from the circle of fellow patients. A natural scientist has been participating in the circle for a few months. He is usually sparing with his comments, but several times he "gets to the point" without much fuss. He is seeing the patient for the first time today. And then says only a few sentences in response to her comments, like this:

*"You're just yelling here and you're just going around in circles. And you resist any change".*

*These were roughly the same words that she had heard from me again and again in therapy in one way or another for years. As he said them, I felt as if they were running simultaneously in my head. My head spontaneously switched into an emphatically awake state. The patient obviously felt the same way. We were both "shocked" by the synchronicity that we both spontaneously*

*perceived. The feedback giver was relaxed and obviously innocent / unprepared outside the specificity of our synchronistic experience, simply an "unsuspecting messenger" and feedback giver without knowing more.*

I experienced a few seconds of concentrated silence in the room.

Only from the two feedbacks that followed - the patient's and mine - did the feedback-giver realise that something special had just happened with us.

Afterwards she commented - half jokingly and a little uncertainly - that she suspected that I had discussed the matter with the patient beforehand. We explained things to him and told him about the past years of therapy. He began to understand the background.

Afterwards, the patient had a restless night and the next morning *"she finally cancelled the plan to return to her previous job"*. Instead, she accepted one of the alternative proposals that had been on the table for 7 years.

From then on, everything went "by itself", as if "unchecked" following a gradient. The previous boss supported her, the new boss welcomed her with open arms, she cleared out her old desk and moved into the new one. The new contacts with colleagues developed organically and without problems. She was able to take residual leave. Overwhelming requests from the previous work area no longer take hold and leave her relaxed.

She begins to familiarise herself with the new job. The field of work proves to be interesting. Her state of mind is balanced. The transformation is now five months ago. The changed therapy goal is now still: practising to change processes and to become more flexible instead of getting rusty.

*Patient's own report:*

"M. and I had neither spoken nor seen each other before. He only knew what I had told him in the group, namely that there

were two options for a change of job. Actually, my decision had already been made and I gave reasons for it. Then came M.'s statement - clear and direct, unsparing - "All pretexts, unconvincing, sounding like justification". My first thoughts: "*What is this? He doesn't even know me and my situation! Presumptuous.*"

On the way home, I began to think that M. was right, that I had talked everything up and made it fit me, and that he had hit the nail on the head with what he had said. Only that I hadn't admitted it to myself until now. It was as if a cloth had been pulled away and it suddenly became clear what was really hiding underneath.

M's statements gave the final decisive push / kick. I use the words push / kick deliberately because it was not a gentle push ;-)".

*Self-report of the feedback-giving patient:*

During a group session, a patient reported about her problems, which were mainly of a professional nature. At that time, the patient in question had been in treatment for two therapy sessions each over a period of two years and now for another two months. As far as I can judge, the trigger for her need for therapy was an occupational overload in her position. At the time of the current therapy period she was on sick leave. She had an offer for reintegration, and at the same time she applied for another position with the same employer. However, she herself was not sure whether she wanted to give up her position.

*I listened to what she had to say and asked a short question. She then tried to defend her position, saying that the problems associated with her current position would not be so serious after all and that she wanted to start the reintegration measure in her old position first and then wait to see whether she would be selected for the other position. Your explanations in defence of your position lasted about 25-30 minutes. In the course of this,*

*I interrupted you and said that you often repeated yourself and that your presentation was not purposeful. I also said that she was in therapy for a reason and that she needed to change her lifestyle, especially her professional situation, in order to improve her quality of life.*

After my explanations, my therapist showed a pleasing reaction. He said that he had already said these exact words to her many times. It should be mentioned here that I personally neither followed the therapy of the patient in question nor had any prior knowledge of the earlier course of the conversation. In conclusion, my therapist classified this phenomenon as synchronicity. However, in the context of this therapy session, I was not yet aware of the significance of this event.

Two weeks later, the patient communicated her decision. She decided against reintegration in her old position. Her application for the new job with the same employer was accepted. Moreover, the patient remarked that my explanations in particular, i.e. the synchronicity of my statement and that of my therapist, 'purified' her and that this event strongly contributed to her decision-making."

### 3. Case report on synchronicity

#### *Via Email*

"Concerns: Many coincidences right now

Hello .....

Just today I am incredibly overwhelmed and speechless about things that have been happening to me in the last few weeks. Since I unfortunately can't be at the next group, I wanted to ask you if you could comment on this from a spiritual point of view and maybe give me some tips on how to deal with it. It almost scares me a bit...

I had already told the group about the encounter with the father from the kindergarten who was living in separation.

Now it has happened 3 times in the last few days that I have met people from the past (some of them 10 years ago). But I always had to think about them briefly beforehand and a short time later they appeared in real life.

But today's encounter absolutely threw me off course.

I met the love of my life again after 12 years. Unfortunately, we never had a partnership. At the time, I was just in my early 20s, I already knew exactly that this would probably be the man for "forever". We had fallen in love at first sight in the classic way. However, I didn't feel ready for such a serious partnership, I was actually still taken elsewhere, but well... It took some time until we could let go of each other.

He found a new woman at some point, they are still together now and moved to XXX. Since then I have never seen him again, but I have never forgotten him. He is in my thoughts almost every day, I had the most beautiful and intensive time of my life with him. I believe that you never forget something like that.

Just a few days ago I wished I could see him again...

This morning was the day. I was later than usual and couldn't believe my eyes when I saw HIM coming out of the kindergarten. He greeted me in the car, but probably didn't recognise me.

What is he doing in the XXXX kindergarten in YYYY of all places, when he actually lives in XXXX?

I had to ask a kindergarten teacher to reassure me whether it was really him. Yes, it is him, he has two children in our kindergarten.

I was so overwhelmed that I started shaking, I felt sick and I cried in the car.

The overwhelming feeling that this wish has come true...to be able to see him again is still indescribable.

But what do I do now? Just wait and see what happens? That is difficult for me.

It scares me a bit that my thoughts seem to become reality really quickly. It almost feels as if I can "do magic"...

*Email 2 hrs later*

Thank you very much for this exciting article (see below). I am very happy that I can benefit from this kind of support.

And since I have been trying (and increasingly succeeding) to stop my thinking and brooding and to give more space to spontaneity and intuition, to let go, to trust, not to constantly forbid myself to speak up and to stand up for myself, many things have become easier for me. I feel free and more powerful. And thanks to mother nature I can experience these beautiful encounters.”

> "Exciting article“: Kendz, S., & Heaton, D. (2017). A qualitative exploration of support of nature as a tool of management. Journal of MVR Institute, 4, 45-73.

*Email 3 days later*

“If "little things" also count, I could list a few events that made me wonder. Material desires in particular come true easily, but actually almost every wish I've had has come true so far. And that's been going on for quite a while.”

#### 4. Case report: Spontaneous healing through meditation

Report Therapist

The patient - a master craftsman, 51 years old, male - called for an appointment. In a detailed telephone conversation he described his concerns and the symptoms:

- He feels driven, restless, suffers from mental circles.
- 8 years earlier burn-out due to occupational overload



- 6 months' sick leave with spa treatment, where he was given some suggestions for relaxation and sport.
- Under stress, pressure on the chest, tingling in the head.
- Can't switch off, wakes up in the night sweating, thoughts revolve around work, then walks around the flat, but can't get any rest.
- For one and a half to two weeks now, all complaints have worsened.
- Increased stress at work
- After a long wait, positive test for ADHD at the EOS clinics in Münster.
- The psychiatrist treating her was not familiar with the condition, so she changed specialists.
- Prescription of Medikinet 20 mg, after  $\frac{3}{4}$  hours "my head cleared up"; this lasted for 3 hours. Doctor's recommendation: 2 x 20 mg daily; after temporary improvement, symptoms return.
- Previously prescribed medication: Mirtazapine 30 mg 0 - 0 - 1 (2008 - 2015); 20 mg (since 2015).

During the initial consultation, the patient reported that he no longer felt in good hands with his psychiatrist, who could not really do anything with him therapeutically. As a goal of the possible behavioural therapy, the patient stated that he "wanted to deal better with things, not always run away".

First of all, he was given a detailed explanation of the medicines he was taking, their effects and their adverse drug reactions (ADRs) when taken over a long period of time, in line with the current state of scientific knowledge. Because of the many years of previous treatments, which were ultimately unsatisfactory, I suggest that the patient look into meditation as an alternative to his previous therapeutic odyssey. There are enough research results to make an attempt with this technique seem reasonable. I

point the patient to extensive information on meditation and psychotherapy so that he can find out more.

I recommended that he initially continue with his medication as before. However, immediately after the first consultation, the patient spontaneously stopped taking his medication on his own initiative, contrary to my recommendation.

Before learning Vedic (Transcendental) Meditation, a visit to a non-binding information lecture by a meditation teacher outside the practice is obligatory.

I have not seen the patient since.

#### *Meditation teacher's report*

The 51-year-old patient contacted me in April 2019 with the recommendation and the wish to learn meditation.

In the preliminary discussion / information meeting, he described his previous history (see above). He made a very tense, restless impression and was determined to learn meditation as soon as possible, although he had not had any satisfactory experience with other relaxation methods (autogenic training, PMR) and had not achieved any regularity in everyday life.

At the beginning of May XXXX, the patient took part in a course to learn Transcendental Meditation with me and has since practised it twice a day - in the morning and in the evening - for 25 minutes. The introductory course takes place on 4 consecutive days, followed by a meeting 14 days later and the possibility to participate in the monthly meditation seminars for the support and supervision of the technique on a permanent basis.

Already during his first meditation the patient had a deeply touching experience of deep silence, relaxation and a feeling of connectedness. On the second day he told that after learning he had to cry in his car for ¼ hour - with a feeling of happiness and gratitude (he had not cried for many years). - The further

experiences in the following days were impressive and profound for him. I could see it in his relaxed, joyful and positive expression.

*Patient quote:*

„After the first meditation, I already felt a sense of freedom in my chest and an easy free breathing. Otherwise there was always this pressure in my chest and this trepidation. The tingling in my head was also gone during the meditation and gradually disappeared completely.“

All dieses hielt nach jeder Meditation mehrere Stunden an.

*Patient quote:*

„Already on the day of the first meditation, during the introduction with you (the meditation teacher), I knew that this would be it, to get away from the tablets (Mirtazapine and Medikinet), somehow I felt this!“

„In meditation I always feel this feeling of deep calm and relaxation and in the calm it also often makes me not breathe for a very long time, about 30-45 sec.“

(These pauses in breathing have been known since the 1980s as TM-typical long-term regenerative breath suspension and have since been further researched.)

His daily approach to stress and challenges has changed fundamentally since then. He takes things more lightly, doesn't think about things so much any more, can set himself apart more clearly and also address this. His sleep is restful again and his former constant feelings of anxiety have been reduced "from 100% to 10%". - He has a positive outlook on his future and on life in general and has experienced a clear change in his perception of his surroundings, nature and people in the last 16 months. He sees many things more clearly and can, for example, experience nature with an intensity that was not possible for him before. - Once, on his way to work, he had to stop at an avenue

of cherry trees, which he had been driving along weekly for a long time, to look at the beauty of the blossoming trees, which touched him deeply.

The patient regularly takes part in meditation seminars and likes to share his experiences with other meditators. For him, meditation has become a crucial part of his life. Further psychotherapy was not and does not seem to be necessary in the near future. He is satisfied with his life and can deal with the challenges in a positive way. - The patient continues to meditate twice a day for 25 minutes and looks forward to it, even if he has to get up much earlier in the morning.

*Patient quote:*

„Even getting up half an hour earlier in the morning for meditation doesn't bother me, as I really look forward to it and it gives me a good start to the day. - After the meditation I am always very relaxed and say to myself: "Where are you little problems? The meditation helps me a lot to have a certain calmness and serenity and above all I get rid of the pressure in my chest and my head, which was unbearable in the end (like being clamped in a vice).“

Further, meditation has given him other perspectives:

*Patient quote:*

"Not always having to do everything immediately"

"Being able to think about it first"

"One door closes - but another opens in its place".

"Not having to think so much about what could have happened (mental cinema)".

"Suddenly seeing or perceiving things again that I had not seen before in my tunnel world (e.g. the cherry blossom avenue)."

In this way, meditation, as I have often experienced, gave him central access to his "inner resources" and a healing process that

had been rather worsened - buried - by various medical measures beforehand.

## 5. Case report: Spirituality and therapy

### *Report Therapist*

This case now more clearly contains the two foci: Spiritual and therapeutic.

The patient's partner was in therapy here years ago and she took part in Coherent Breathing here at intervals, which we have been offering for four decades. I developed it further from the breathing technique known at that time as "rebirthing" by Leonard Orr to Coherent Breathing, which is now clearly different from rebirthing, but also different from Coherent Breathing by the American Stephen Elliott.

She has been practising Vedic Meditation ("TMi", our more empirical and science-based approach to TM according to Maharishi Mahesh Yogi, offered independently of the TM organisation) for years. She claims that once-a-month participation in "breathing", as it is called among participants here, keeps stress away from her body (back pain) for four weeks.

The patient has persistently refused meditation so far, despite her recommendation, and both are doing well with it. The couple has two children. As both of them work full time, their day is strictly and tightly structured and both of them schedule it in an interlocked way.

The reason for him to go to the practice was a one-time "fling" that left him feeling guilt-ridden. He could not cope with it and sought help.

*Diagnoses:* Depressive episode, moderate, with somatic syndrome; generalised anxiety disorder; obsessive thoughts and acts, mixed; anxiety and depressive reaction, mixed; other eating disorders

The first therapeutic action was to take away his feelings of guilt and to learn to see the "fling", which was a one-time event, in the appropriate context and to reduce the feelings of guilt. This was achieved in a relatively short time.

The patient was - as I also knew from the partner's therapy - extraordinarily ambitious. He worked in a company and wanted to reach leading positions there. In terms of sport, he trained over-motivated several times a week in Marathon. He suffered from bruxism and grimacing because of the tension, was "an intelligent, controlled head person", constantly tense and seeking recognition. Over the years, the partnership had been almost imperceptibly lost in the day-to-day family and professional duties. Both were unfulfilled and frustrated with each other, but it had not yet come up for discussion or debate.

Since meditation (Vedic Meditation, "TMI") has played an important role in our practices from the beginning, we recommend that he listen to the non-binding introductory lecture on this to see if it might be something for him.

He decides to learn it and participates in the basic course. He also takes part in the Coherent Breathing from the beginning.

With the first intensive emotional catch-up sessions, the emotional congestion, the grief, the feelings of guilt begin to be released. Behind this, other things become clear. The cultivation of partnership had fallen by the wayside for years in the course of everyday stress.

Immediately after learning and regularly practising meditation twice a day, insights and consequences followed one after the other - in rapid succession. Already from the second meditation he emerged with the decision: I have to / will quit my company. He cancels his job at the previous company because of unreasonable stress - this was long overdue - and shortly afterwards has the opportunity to join another company.

In the past, he has been perfectionist in sports - judo five times a week, from the age of 17 to 18 he does special diets. He has deep experiences in meditation as well as in breathing - it is as if a gateway to another world/level has opened. He is now reading "Yogananda - Autobiography of a Yogi". In the company he has been on "old programmes" since childhood - struggle for recognition and achievement. Why the various jobs so far, why the further training? "Because of the finances, in order not to become dependent, to maintain self-reliance and to keep control over the situation.

*5 months after the start of therapy:* He is more relaxed at work, for the first time in his life - even when asked - he no longer works overtime (!), "Every day is new", he no longer has any fixed plans for the future, feels open to the future. Obviously, field independence and self-determined navigation have increased significantly. He enjoys his new job, the boss sits opposite him, she is "fully stressed" and asks him on a stressful day shortly before burnout, crying, how he manages to have a calm aura in his situation, the boss also becomes somewhat calmer in the course of the day as a result. His best friend asked him how his wife was feeling and would like to talk to him about where he got his calm. He tells him about his meditation. Others notice the changes in him, he is experienced as more authentic. In meditation as well as in Coherent Breathing he has deep experiences of inner states of being free of thoughts and of complete calmness / stillness both mentally and physically.

In the therapy we turn to the early socialisation, work out the boundary conditions of the development of his perfectionism, his ambition, his over-motivation and greed for recognition and competence ascribed by others, which he also experiences in excess.

Body psychotherapy promotes the loosening of the entrenched muscular structures.

*9 months after the beginning of therapy:* The patient experiences himself as less career-oriented than before in his life and has cancelled some ambition projects. He is satisfied with his position in the company - a subsidiary of an American company. Only the boss and some colleagues still have in mind that he would like to move up and "undoubtedly will" - or so they think. He signals that he no longer "wants to go higher". The company pays its employees for Total Immersion (five days of intensive training, 12 hours a day each, in American English).

He discovers his joy of movement in a special dance class - his partner doesn't want to join. He still does marathons, but differently than before, less often, without a watch or measurement, just for fun.

His movements have become more relaxed, which is noticed by his wife and colleagues. The previous "rigidity" has dissolved. The couple talks about the past years and has a new way of dealing with each other and with the children. During the routine staff appraisal by the boss, he receives two core appraisals from her:

- He is not a person who evaluates
- He is balanced in terms of rationality and emotion".

He experiences a promotion to the next level in the company, which means that he now trains managers and is responsible for training in the company.

He now more often has the experience of being deeply relaxed in sleep and not losing his consciousness for long periods of time, that pure (thought-free) consciousness is maintained in an extremely pleasant silent state ("witnessing sleep").

In meditation and Coherent Breathing often the experience of ("switched off") timeless transcendental states of deep physical and mental-emotional rest completely without thoughts ("savikalpa samadhi", in TM "transcendental" or "pure consciousness").



In a very intense-emotional partnership conversation situation during a car journey, he "accidentally" discovers the number plate of the car in front, whose number plate surprisingly represents the letters and numbers of the place and date of their wedding. They go to concerts and things are looking up for both of them.

In the company, there is now often the situation that "seasoned managers" cry to him and he has to learn how to deal with it - this is new for him.

*12 months after the start of therapy:* The patient begins to slowly withdraw from therapy. Wants to go his own way. He thinks about how much he has influenced his children towards achievement orientation and perfectionism, or still does. One of them already seems a bit dogged when playing if he doesn't want to succeed at something.

We are still working on making important conditioning experiences during childhood conscious, on resolving them. He has clarifying conversations about this with his mother.

The employees in the company increasingly approach him and confide in him. He sometimes becomes a problem solver. It is now easier with the employees, he no longer runs after expectations. The reproaches to his mother have dissolved, as has his deep sadness about old stories. One apprentice he was supervising, who was anxious about his exams, simply sat quietly with him while he did a meditation and that was enough to put him at rest qua resonance.

The company management was at loggerheads and he was asked to coach those concerned. He succeeded in resolving hardened fronts. The management wants him to take over on an interim basis. He is now literally "pushed up, upwards" from the outside, which gives him a lot: to be successful without having morbid ambition. However, he rejects the offer because he is

satisfied with his previous job. He experiences "added value" in the company simply by listening.

He plans to take further psychological training, for example in the direction of C. G. Jung with the aim of working as a counsellor. Is not intensively searching, but lets himself "drift there".

In breathing and meditation he has deep symbolic, joyfully inspiring spiritual experiences and feels stimulated by concepts such as synchronicity, "transcendence", coherence, interconnectedness and resonance between individual and environment.

We end the therapy amicably.

*The patient's own report:*

About nine years ago, my partner became mentally ill. Plagued by anxiety and panic attacks, she went to therapy. Here she had her first contact with Vedic meditation (Transcendental Meditation). She practices this regularly and also takes part in the Coherent Brea-thing "Breathing" at sometimes longer, sometimes shorter intervals. Her condition has improved abruptly as a result. She had gained a new zest for life and balance. Over and over again she also wanted me to make meditation a part of my life. However, I strictly denied it and asked myself, "Why should I do it? It's all right." I felt like the alpha of the family at all times in the following years. In the meantime, we had two children and I was the one who provided for the well-being of our family of four, showed overzealous commitment at work, continued my education in an evening course and, last but not least, felt physically strong by training for a marathon. Those around me admired my performance and I felt satisfied with that. -The performance thinking stems from my childhood.- In any case, I got recognition all along the line. My partner and I developed an excellent teamwork in order to cope with our close-knit everyday life. We were a very good team in that respect. We each knew our tasks, but I was in control of the whole thing. But more and more I felt that I was driven by my life.

There was no time to take a deep breath, let alone for partnership and togetherness. My partner had not perceived me as a loving husband for a long time; there was mutual anger and coldness. We lost sight of each other, fell silent and petrified. Finally, I locked my heart in a safe. Every decision was made emotionlessly, rationally, cerebrally. So was the will to turn to another married woman, to the point of exchanging physicality and letting feelings of affection flare up. The attempt to evoke emotions succeeded, I felt comfortable in her presence and seen as a human being - not as a machine. The contact with this woman, after a fling, became less until we said goodbye amicably, that was our deal. On a beautiful summer morning, the fling was three months ago, I woke up to nervousness, restlessness, panic and a racing heart. I straightened up, took a breath and told my partner, who had just woken up, about the fling. For my wife and me, too, the world collapsed. Our house of cards collapsed. I was suddenly in emotional chaos, full of guilt and physically weak. There was no trace of the big "EGO" any more. I felt tender and in need of help. All the family and professional pressure to perform better and better and my own perfectionism to constantly chase new challenges and goals made me fall into a deep hole from one moment to the next. Heavy weight loss, little, restless sleep, heart palpitations, restlessness, anxiety were my new existence. My partner, who stood by me despite the infidelity, now recommended that I seek professional help. I called the practice we were familiar with and asked for an appointment. My first perception in the practice was calmness and security. I opened up within minutes and cried waterfalls. The guilt tore me apart and at the same time made me feel ashamed. At some point, in addition to psychological therapy, I was recommended to learn Vedic meditation and participate in Coherent Breathing. After a first introductory lecture on meditation, it was clear to me that I wanted to acquire this additionally as a methodology (that's how I saw it at first). Already on the second date of the meditation course and after a few meditations I gained clarity bit by bit and decided to leave

my stressful and unsatisfying job behind. I never went back there again after that day. The resignation followed. In small steps I "evolved" out of the ropes I had tied tightly. For me, the three interrelated building blocks of this form of therapy allowed my development to progress and me to grow on different levels. Group discussions helped me to have intimate conversations with participants who were familiar to me, although I did not know them before. Here we talked openly, transparently and bluntly about our feelings, experiences, fears and complaints. In doing so, we showed each other the utmost respect and dealt with each other intensively. Here, through the different perspectives and approaches to my situation, I was able to break down my thought barriers and let go. These were great enriching evenings and above all I felt very safe and always warmly welcomed.

Individual conversations also had an intense character. Here we looked through some of my life areas and applied coping strategies that were suitable for me.

As already mentioned, the regular meditation had a physically and mentally healing function for the time being. I could sleep better, my restlessness changed into balance and my cheerfulness returned. But from today's perspective, meditation has a much greater effect on me, so that it has become not only a tool, but a philosophy of life. My view of life, people and nature is open, unrestricted and unprejudiced. I just let things come to me and don't always plan everything in detail. My first profound experience in meditation was on a winter morning when I was practising meditation as usual. I was like switched off, transcended. A feeling of spacelessness and timelessness, I realised afterwards. I just sat there for a long period of time, without any influence. Afterwards I felt so energetic that I could have pulled out trees. I immediately looked for a new job, one that would fill me with joy and that I would enjoy. In the end I had three job offers and was in a position to choose. This time it was not my reason, my rationality that decided, but my heart. Super

feeling. Over time, new directions opened up for me, and I always look to the left, to the right, to the front and to the back and then choose the direction. Comparable to a signpost in life without a destination. In the process, I receive small signs that I perceive and interpret for myself. Like the message on my mobile phone about a new song I should listen to. The title was "Movement". I listened to the song and could identify with some of the statements, such as "You're movin' without movin'". I was also impressed by the dance style from the music video, so I went to a dance school for a trial lesson. On the same day, I went by car to pick up our children from friends. I was standing at a red light and looked at the registration number of the car in front of me.

The number plate again showed me the word "move" and the number reflected our date of knowing each other -my partner and I-. Astonished, I told my partner about it and this resulted in many open conversations in which we got to know each other anew, laughed a lot, discovered each other anew, expressed our wishes and needs and at the same time decided to set aside expectations towards each other. We understood that we cannot expect our happiness from the other, but that each individual has to provide for it himself.

In the meantime, I had reached a point where I was being carried along by life to a certain extent, without much effort or influence. Did it have something to do with my positive attitude? In the past two years after starting my new job, I have felt a lot of trust from my colleagues and the management staff as well as appreciation for my actions. In this context, my boss has noticed that I am able to engage with each individual and thus build cooperative relationships within the company and additionally coach difficult situations as well as relationships in order to find new ways and solutions together. I am very grateful for being able to experience this development in the company. I continue to work with a lot of commitment, but with fun. I have left my pathological ambition behind.

In the meantime, my wife and I lead a loving and appreciative relationship. We accept and respect our individuality. Our everyday life is still very strict and organised, but we have changed the way we deal with it and see it as an opportunity. We take time out for two or enjoy our family time. We also set aside our own free time (each for ourselves) for activities such as sports, meeting friends or just resting.

I am grateful to have been able to have the experience on a spiritual level and also to have gone through the kind of psychological therapy. There is a balance between rationality and emotionality.

Finally, I would like to say that I have always read a lot, including about Transcendental Meditation. Here, above all, a quote from Maharishi Mahesh Yogi accompanied me on my path and this is my essence:

*"All that we are is the result of what we have thought, The mind is everything. What we think, we become."*

## 6. Case report: Atopic dermatitis and TMi

### *Report Therapist*

The patient - 19 years old, male - came to the practice for an initial consultation. He suffers from severe neurodermatitis and his doctor, who has been practising meditation (TM) for a long time, recommended that he learn this form of meditation from me.

For ten years, the meditator remains under my care and I check the meditation if necessary. The meditator also attends meditation courses, mostly on weekends.

In 2003, the patient starts psychotherapy. He has continued to meditate regularly until then.

The following therapy deals with the traumatic experience of his parents' divorce in the eighth year of his life, through which

"a world collapsed" for him. One parent tried to hang himself. The patient continued to live with his father and grandmother on the farm. After the separation, he does not see his mother again until a year later. Since the father works, the patient is alone on the farm after returning from school, feels lonely and isolated, sinks in school. The father remarries, the patient is now 13 and does not get along with the father's new wife. He therefore moves to the mother and "says goodbye" to the father.

With the mother and her new partner preferring his biological children, he felt like a "fifth wheel". He cut himself off from him and increasingly stood on his own two feet, became more independent, took things into his own hands.

He went "overboard" for a while and had bad relations, even had to deal with the court at times, but then got back on his feet. He finished school with very good marks, did an apprenticeship in his parents' shop and was caught between the shop assistants and his mother's management, between two stools, so to speak, feeling that he belonged to no one. Over time, he developed depression and neurodermatitis. He scratched himself bloody at night, the dermatologist sent him to the clinic twice, where he was treated with cortisone shock therapy. The doctor had time for him. And his circle of friends was a substitute family for him. He soon didn't let his stepfather get close to him any more. He had started karate training (later also kung fu, kenpo), which gave him a boost in self-confidence. His stepfather was against everything on principle, against mopeds, against clothes for martial arts, later against cars, against meditation, etc. In the end, it was his own stepfather again. In the end, it was his own father again who bought him the motorbike and helped him buy a car. His mother overlooked his new partner's misbehaviour out of a desire for harmony.

Later, he brought his friends to the farm and introduced them to his father, which pleased him. He eventually developed more inner closeness to him than to his mother.

For two / three years, relationships also became a therapy topic for a short time.

In 2003, a report was sent to the doctor with the request to prepare a medical consultation report for the application for psychotherapy to the PKV:

Current complaints, psychological findings: low mood and emotional instability, tension, social withdrawal, inhibition of drive;

Brief summary of the relevant anamnestic data: acute stress syndrome against the background of long-term occupational stress / excessive demands.

*Diagnoses:* severe acute stress reaction in the recent past; followed by adjustment disorder with mixed flow of emotions and social behaviour, psychosomatic stomach complaints (other somatoform complaints) as well as psychological factors and behavioural influences in diseases classified elsewhere.

Relevant pre- and parallel treatments: medical therapy for stomach complaints June to July 2003;

From 2011 onwards, he occasionally took part in Coherent Breathing, with which he had good and profound experiences that supported his meditation.

He was very successful professionally and once said in those years that he had achieved everything in the meantime, which he had actually only hoped for and set as a goal for decades later. Meanwhile, the patient has been married for several years and has children.

His professional ambition typically led him to become irregular with his meditation during the pre-Christmas period - when his "business was humming" - without him really realising it.



### *Retrospective Report Patient (2020)*

I would like to share the following experience and associated memories with you.

When I was about 17 years old, my neurodermatitis, which had been rather mild until then, started to get worse and worse.

When I was about 18, I started a "journey" from doctor to doctor, via alternative practitioners, dietary changes and everything else you can try.

At a later stage, I had two hospital stays in the XXX skin clinic. This was also the absolute climax of my skin disease, with the result and statement of the head doctor that I would have to live with it and that he saw no possibility of a cure.

Dr. YYY from XXX, who accompanied me throughout the whole time, gave me the recommendation to try meditation shortly after this "climax" and gave me your contact details.

At that time I had such bad itching and scratching attacks almost every day, especially at night, that I kept scratching my face, scalp and other parts of my body bloody.

Already during the introduction to TM I could clearly feel the deep calm and relaxation of this technique.

After about 3-4 months (I am not quite sure of the time) of very strict and regular meditation, I had deep and very painful experiences in each meditation in four following days.

In each of these meditations, memories from my childhood came forth that I had not been aware of until that time. (as if they were not there)

The key experience was that I relived a traumatic experience one-to-one.

So I was reliving EVERYTHING in these meditations as if I were that 9 or 10 year old child again. All the memories and feelings came out, so they came back into my consciousness.

I remember exactly how I called you and you explained and advised me, no matter how "terrible" these meditations are, to continue meditating and that every meditation is a good meditation...

The result after these four days was that my skin completely regenerated within a few days. There were no more scars or other skin injuries to be seen.

In the weeks and months that followed, during the meditations, other gaps in my memory closed up again (I had been missing about 2 years of my life until then).

Since this experience, my skin has been free of neurodermatitis to this day!

Another effect of TM was that I could remember dreams again, which had not been possible for years (I only became aware of this later).

I hope you can cope with my explanations and that everything is comprehensible.

### ***Synchronicity - wish fulfilment - as "support of nature".***

The founder of TM, Maharishi Mahesh Yogi, described that meditators reported spontaneous wish fulfilment that seemed to be caused by "lucky coincidences". Without their direct intervention, circumstances spontaneously occurred that led to their wishes being fulfilled. Maharishi called this 'Support of Nature'. He called it a consciousness-based management tool to 'Do less and accomplish more' when it comes to fulfilling personal desires and goals. "Support of Nature", according to Maharishi, can be cultivated through vedic (Transcendental) Meditation and programmes associated with it.

Kendz and colleagues (2017) reported a study of the effects of "support of nature" through meditation (TM). They selected long-term practitioners for semi-structured interviews about their experiences. Six of the 18 subjects were executives, the

other 12 were participants in an organisation promoting world peace.

The authors report some typical synchronistic experiences of the subjects with the "support of nature" and that temporal occurrence and meaningfulness of wish fulfilment increased over time with meditation practice. Such experiences were predominantly associated with a calm and relaxed mental state.

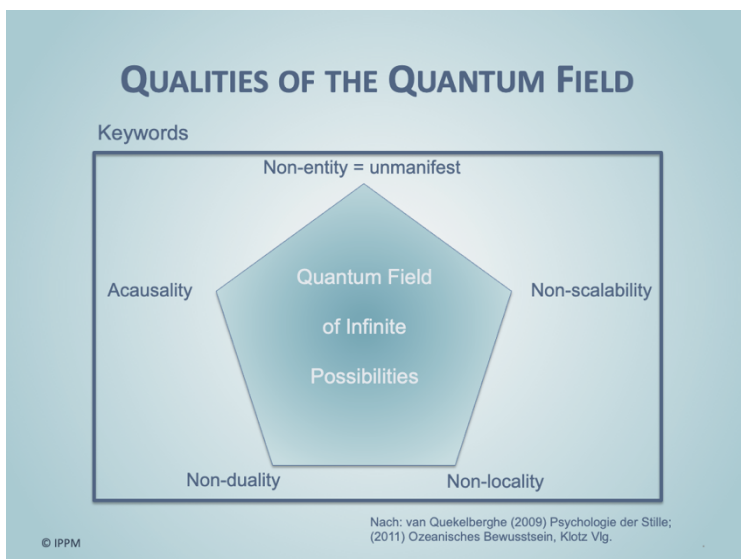
The respondents mainly used terms such as "the higher self" or "pure consciousness" (content-less = without thought; "thoughtless emptiness") when describing their synchronistic experiences, whereas ego, intellect and mind - thinking - were hardly mentioned. The authors conclude that the synchronistic phenomenon of "support of nature" deserves further conceptual, empirical and practical consideration in the field of meaningful coincidences that can contribute to wish fulfilment and goal attainment.

## Quantum mechanics and consciousness

### *Field theories of consciousness*

Renaud van Quekelberghe

Renaud van Quekelberghe (2011) has designed the following pentagram of the qualities of the quantum field (quantum vacuum state, zero-point field):



Pentagram of the unitary consciousness quantum field according to van Quekelberghe; the term "quantum field of infinite possibilities" was added by us (Source IPPM)

*The following applies to stillness of consciousness: non-entity and unmanifest.*

Consciousness is not - however conceived - a "thing". Consciousness and quantum vacuum are rather virtual possibilities, "potentiality", van Quekelberghe speaks of "enabling

potentiality". Consciousness-silence is described by van Quekelberghe as a field of possibility.

*Consciousness-silence and non-causality (non-conditionality).*

"As a primordial field, the fundamental silence or quantum vacuum constitute the origin and primordial ground of all conceivable causal relations, without itself being in any way conditioned by anything else." (van Quekelberghe, op. cit. p. 39) Consciousness-silence eludes "Ursa-che-effect-thinking". Consciousness-silence appears here as a "non-local non-entity" and can neither be determined as an effect nor as a cause. The quantum-mechanical vacuum, as the purest representative of quantum-mechanical reality, is not a chaotic state, but a state of perfect order and minimal entropy (disorder), in which everything is connected to everything else. Order is the expression of disappearing entropy. (Zeiger, 2019)

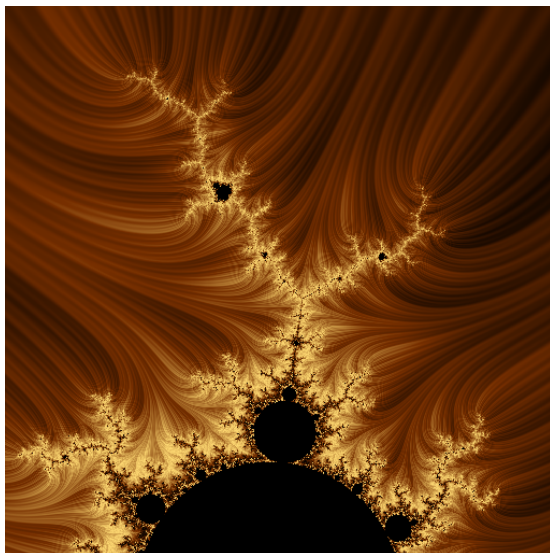
*Non-conditionality as the lowest possible energy or information.*

Just as the lowest possible energy prevails in the quantum vacuum, symmetrically to this the stillness of consciousness is the place with the lowest possible information, true to the equivalence of information and energy. Fifty years ago, Maharishi Mahesh Yogi spoke of the state of least excitation in deep meditation, referring to the law of least excitation. According to Maharishi, the essence of consciousness, namely silence, is not "nothing". (van Quekelberghe, op. cit., p. 39). "In the vacuum state, information is present as multidimensional symmetry". (Zeiger, op. cit.)

*Consciousness-silence and non-scalability*

Consciousness and silence are not scalable (measurable) - there is no scale that could measure consciousness and/or silence. Consciousness and silence are, by their very nature, limitless and undivided. As a result of the development of fractal geometry since Mandelbrot's "apple man", we are beginning to

understand how diversity can emerge from the iteration of simplest formulas. Examples in nature are manifold - e.g. cauliflower and fern leaves. We speak of "self-similarity" and "scale invariance". If we think both through, this leads us to the principle self-reference of consciousness and conscious silence to itself, in that it eludes determination of size, measurement and scaling.



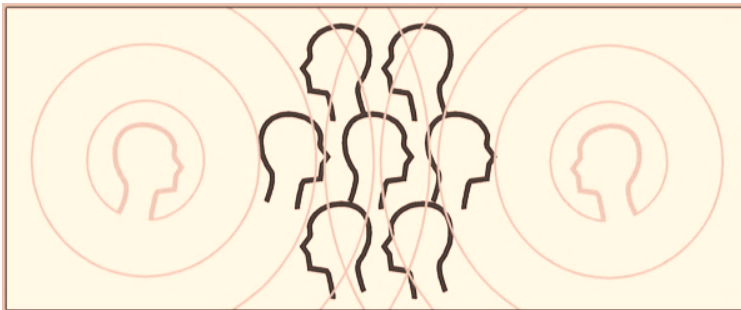
apple man; Quelle IPPM

### *Consciousness, non-locality and non-duality*

Consciousness cannot be localised because it is "ubiquitous" - present "everywhere"; consciousness cannot be assigned a specific location - e.g. "in the brain". Consciousness exists only as a singular, there are no "consciousnesses". According to Vedic tradition, consciousness is not divisible, thus indivisible - not dual - and One. Through consciousness, everything in our universe is connected to everything else.

### *Interaction between individual and collective consciousness*

As we know from meditation and consciousness research (Aron & Aron, 1986; Nelson & Kindel 2018; Nelson 2019; Jahn R & Dunne B, 2011), the coherent functioning of body-mind-spirit and individuals not only leads to improved overall health of the individual, but also has the tendency to spread synchronously in the social structure as "togetherness" and connectedness. This refers to family, friends, co-workers, neighbourhood, community, regions, countries and can be seen in significant positive changes in various parameters of the quality of life of the individual and the community - in the case of major events also globally.



Interaction between individual and collective consciousness; source IPPM

### **C . G . J u n g**

C. G. Jung expanded Freud's concept of the unconscious with the "collective unconscious". We have already described it in the chapter on synchronicity. According to Jung, the collective unconscious contains the wealth of experience of the entire history of mankind and has a constructive, ordering function. A similarly structured conception, albeit with different terms, is found in Rupert Sheldrake's work.

## Rupert Sheldrake

Rupert Sheldrake speaks of "morph(ogenet)ic fields", "formative causation" (Sheldrake, 1994, 2008):

„The hypothesis of morphogenetic fields is based on the idea that morphogenetic fields do indeed have physical effects. It further states that specific morphogenetic fields are responsible for the characteristic form and organisation of systems at all levels of varying complexity, not only in the biological realm but also in the fields of chemistry and physics. These fields order the systems to which they are connected by acting on events which, energetically speaking, appear to be indeterminate or probabilistic." .... "The morphogenetic fields of all past systems become present to each succeeding system, and the structures of past systems act on succeeding similar systems through a reinforcing influence that is effective beyond space and time."

"The process by which the past becomes present within a morphic field is what I call morphic resonance. The concept of morphic resonance involves the transmission of formative causal influences through space and time."

"Pavlov, for example, trained mice to run to a feeding place when an electric bell struck. It took the first generation of mice 330 trials to learn this, the second 103, the third 30 and the fourth 10 trials."

We can also understand the *collective consciousness* as a *morphogenetic field* - and vice versa, in which the evolution of humanity in tribal history as well as cosmogeny in general is stored - it is the memory of humanity and - in an extended sense - of creation as a whole.

## David Bohm

David Bohm was one of the most important scientific thinkers and respected theoretical physicist of his generation. Bohm was



an outsider as a scientist. He spoke of a superordinate information field - "active information field" of an implicit, enfolded order that contains a continuum of ordering principles. The world we see is the manifest expression of this hidden invisible field of "lines of force".

David Bohm developed a theory of quantum physics that views the totality of existence, including matter and consciousness, as an unbroken whole.

He calls the world of manifest phenomena the explicit order. It can be derived from the set of implicate orders.

"We therefore propose that it is the Implicate Order that operates autonomously, while the Explicit Order, as we have already indicated, arises from the law of the Implicate Order, and is thus secondary, derivative, and appropriate only in certain limited contexts. Or, to put it another way, the relations that constitute the fundamental laws prevail between the folded-in structures that interweave and interpenetrate throughout space, and not between the abstracted and separated forms that manifest themselves to our senses (and instruments).... quantum theory possesses a fundamentally new kind of non-local relation that can be described as a non-causal connection of distant elements ..." (Bohm, 1980)

1. motion is generally discontinuous, in the sense that the effect consists of an invisible quantum (which also means that, for example, an electron can pass from one state to another without passing through any intermediate states).
2. Entities, such as electrons, can have different properties (e.g. particle-like, wave-like, or anything in between) depending on the circumstances in which they exist and where they are observed.
3. Two entities, such as electrons, that initially combine to form a molecule and then separate, exhibit a particular non-

local connection that is best described as a non-local connection of distant /elements....

*Therefore, if all effects take the form of discrete quanta, the interactions between different entities (e.g. electrons) result in a single structure of indivisible links, so that the whole universe must be thought of as an unbroken whole."*

Roger Nelson on this: Bohm's model is based on the theoretic approach that *consciousness is the source or seat of a non-local, active information field ... Simply put, consciousness is a source of active information.*

He quotes the American physicist and philosopher Henry Stapp, for whom thought processes have a quantum mechanical basis:

"The human being would not only consist of matter ... The brain is subject to a quantum system that works with programs that are pure wave functions. The quantum mechanism opens up active forces to "non-local consciousness" through coherences, triggering a transfer potential located in the formless "potentia" in the transcendental realm of consciousness."

Researchers practising non-dual Meditation increasingly identify consciousness with the "unified field" of quantum physics. This means that consciousness is understood as a quantum-mechanical reality.

Corresponding early approaches already existed in the seventies with researchers practising TM such as the Nobel Prize winner Brian Josephson, the physicists Larry Domash, John Hagelin and others, whose early historical contributions are now in danger of being forgotten (Domash, L 1975; Hagelin, J 1987, 1989).

## Formans Consciousness-Field-Model

Wikipedia says about him:

Robert K. C. Forman is a long-time practitioner of Transcendental Meditation with over 40 years of practice. After two years of practice, he had his first "break-through" during a nine-month meditation retreat:

"On 4 January 1972, at about 4 o'clock in the afternoon, my neck dissolved as if by itself. I found myself on a nine-month Transcendental Meditation retreat, doing TM and yoga for about 8 hours a day. Although I was hyper-awake there anyway, I could not have missed this experience otherwise: Who I was, how I thought, how I saw, even how I slept from that night on, was different now and would always be."

This first experience led him to pursue a doctorate at Columbia University and an academic career in religious studies. ....

Forman held that there is a phenomenon he called "pure consciousness event", an "awake, though contentless (purposeless) consciousness", which is equivalent to samadhi ..... In transcendental meditation it is called transcendental consciousness; it is the fourth of seven states of consciousness and the first of four transcendental states of consciousness that eventually end in full enlightenment.

Forman (2008) presented his model of the field of consciousness at a multidisciplinary meeting of experts on neuroscience, spirituality and consciousness in Freiburg in 2008. He called it the "CFM" for "Consciousness-Field-Model".

According to Forman, consciousness is a fundamental element of reality, a dimension of its own and not simply an epiphenomenon of the brain's activity. In his model, consciousness is

independent of brain processes, takes place with the help of the brain, but is not in it.

Forman describes consciousness as an independent field that transcends time. For him, the relationship between brain and consciousness is similar to that of Römer and Walach (op. cit.), that of a non-local correlation or entanglement.

He points to the kinship with Vedic philosophy, which sees brahman as the unchanging source of everything. Brahman is ubiquitous ("everywhere") in everything and everyone - at the same time transcendent and immanent. Quantum coherence means the unrestricted connectedness of "everything with everything".

#### Hagelin – consciousness as the unified field

John Hagelin is an internationally known quantum physicist, about whom WIKIPEDIA writes:

*John Samuel Hagelin* (born 9 June 1954) is the President of *Maharishi International University* (MIU) in Fairfield, Iowa, and Honorary Chairman of its Board of Trustees. In 1975 he graduated with highest honours (summa cum laude) in physics from Dartmouth. He then studied physics at Harvard University, where he earned a master's degree in 1976 and a doctorate in 1981. By the time of his doctorate, he had already published several papers on particle theory.

During his time at CERN (European Organization for Nuclear Research in Geneva), SLAC (Stanford Linear Accelerator Center) and MIU (Maharishi International University), Hagelin worked on supersymmetric extensions of the Standard Model and on theories of grand unification. His work on *flipped SU(5) heterotic superstring theory* is considered one of the more successful unified field theories or "theories of everything" and was highlighted in a 1991 cover story in *Discover* magazine.

Hagelin describes *consciousness* as a fully universal field of "pure, self-interacting" consciousness - a consciousness that is aware only of itself, free of any individualising influence or external objects of experience. Consciousness as a unified quantum field has as its most obvious and essential property that it *exists*. For this existence to be substantial, it must be *permanent*. The field of consciousness therefore *exists eternally*. Another characteristic of the field of consciousness is *intelligence*. The moment consciousness becomes aware of itself, it *recognises* itself as *intelligent* and *intelligence* - and thus instantaneously becomes *creative intelligence* - creation begins.

### Joachim Keplers "Zero Point Field" (ZPF)

Joachim Kepler (2012) assumes that

the special feature of conscious systems compared to unconscious systems is the ability *to access and modulate an inherently sentient background field*. This means that the brain generates an individual stream of consciousness by periodically modifying an *omnipresent field of consciousness*.

Kepler calls this "omnipresent stochastic (chance-dependent) background field" a "*zero-point field*" (ZPF). According to Kepler, the brain behaves like a macroscopic quantum system and generates ZPF information states. This makes it a suitable candidate for the substrate of consciousness. The vacuum is filled with this all-pervasive stochastic radiation field - the zero-point field.

While Western science has so far focused purely on the investigation of the outer world, according to Kepler, Eastern philosophy has dealt with the systematic investigation of our inner world with the help of meditation techniques. He sees Western science and Eastern philosophy as complementary - each can gain insights that are closed to the other.

His concept is based on three basic principles that are in agreement with physics, neurophysiology and Eastern philosophy:

1. Consciousness is a fundamental property of the universe.
- 2: The ZPF is the substrate of consciousness.
- 3: Our individual consciousness is the result of a dynamic process of interaction that leads to the realisation of information states in the ZPF.

The principles express that consciousness is not produced by matter. Rather, matter and consciousness have a common basis. This reflects the realisation that the ZPF not only orchestrates matter and is responsible for the phenomena in our physical world, but also forms the basis of our consciousness. The stream of our individual consciousness results from the modification of the ZPF by the brain. The physical and phenomenal properties of our world are merely two different aspects of a single fundamental reality.

In their recent article, Keppler & Shani (2020) speak of a new variant of cosmopsychism. It is based on the assumption of a cosmic level of consciousness that serves as the ultimate foundation of experiential reality.

They describe the zero-point field as a "formless, undifferentiated ocean of consciousness" in which all shades of phenomenal consciousness are inherent as possibilities. Although one cannot assign a concrete state of consciousness to the disordered ground state, experiences of deep meditation suggest that it is a maximally unified phenomenal state.

Robert Lanza: „Biocentricity“

The entire Western philosophy of nature is once again undergoing a transformation that has been forced upon us by the experimental results of quantum theory. At the same time, these results have increased our doubt and uncertainty about the

traditional physical explanations of the origin and structure of the universe.

Biocentrism completes this shift in our worldview and turns the planet upside down again with the revolutionary idea that life creates the universe instead of the other way around. In this new paradigm, life is not simply an accidental by-product of physical laws.

Biocentrism is the first scientific model that sees consciousness as the source of life and not vice versa. In other words, the world is perfect for us not because of some random spin of the universal roulette wheel, but because it was created in the first place by our collective consciousness. (Lanza 2010)

Lanza summarises the principles of biocentrism as follows:

"The *first* principle of biocentrism: what we perceive as reality is a process involving our consciousness.

The *second* principle of biocentrism: Our external and internal perceptions are inextricably intertwined. They are different sides of the same coin and cannot be separated.

The *third* principle of biocentrism: the behaviour of subatomic particles - indeed of all particles and objects - is inseparable from the presence of an observer. Without the presence of a conscious observer, they exist at best in an indeterminate state of probability waves.

The *fourth* principle of biocentrism: without consciousness, 'matter' is in an indeterminate state of probability. Any universe that could have preceded consciousness existed only in a state of probability.

The *fifth* principle of biocentrism: The actual structure of the universe can only be explained by biocentrism. The universe is finely tuned to life, which makes perfect sense

if life gives rise to the universe and not vice versa. The universe is simply the full spatio-temporal logic of itself.

The *sixth* principle of biocentrism: time has no real existence outside of a creaturely sense perception. It is the process by which we perceive changes in the universe.

The *seventh* principle of biocentrism: Space, like time, is not an object or a thing. Space is another form of our animal understanding and has no independent reality. We carry space and time around with us like turtles carry their shells. There is therefore no absolute self-existent matrix in which physi(cal) events occur independently of our lives." (Lanza, 2010)

The last statement is found analogously in verse 1.2.13 of the *Brahma Sutras* of *Sankara* - founder of *Advaita Vedanta* (Gambhirananda, 1972):

„(The person) inside (the eye is Brahman) on account of (the attributes mentioned therein) being appropriate (only to Brahman).”

The person who has his seat in the eye is the Self. It is immortal and fearless; this is Brahman. The question is whether the person referred to here is the reflection of a person in the eye, or the individual soul, or the sun that supports vision, or Brahman. The Sutra says that "this person in the eye" is Brahman, because the qualities mentioned here 'immortal', 'fearless', etc., in relation to this person can apply exclusively to Brahman (be true only in relation to Brahman) and they cannot be explained away otherwise.

Another way of perceiving the emptiness of space, according to Lanza, is the modern realisation that the apparent void seethes with almost unimaginable energy that manifests itself as virtual particles of physical matter, leaping in and out of reality like trained fleas. The seemingly empty matrix upon which the



picture book of reality is green-lit is actually a living, animate 'field', a powerful entity that is anything but empty. Sometimes called Z-point energy, it begins to appear when the all-pervasive kinetic energies around us have come to rest at a temperature of  $-273.15^{\circ}\text{C}$  at absolute zero. Zero-point or vacuum energy was experimentally confirmed in 1949 by the Casimir effect, which causes two spatially adjacent metal plates to be strongly pressed together by the vacuum energy waves surrounding them on the outside. The tiny space between the plates does not allow the energy waves between the plates enough 'room to breathe' to withstand the pressure exerted from outside.

Even using conventional symbolism, it could make sense that everything is in some way relatively entangled with everything else, despite the seeming void in between. (Lanza, 2010)

### Quantum change - Quantentransformation

A thing of transformation is a point that is still, but full of transformational dynamics and effective forces. The typical metaphor for this is the hub of the turning wheel.

There are two models for personal development and transformation: changes either take place in small steps, as in learning or conditioning - or they occur as discrete sudden "jumps", as for example in the "aha" effect of a creativity process or cognitive process.

Many systems in nature show periods of turbulence and instability with sudden dramatic changes or growth spurts. The Belgian Nobel Prize winner Ilya Prigogine became famous for his theory of *dissipative structures* in chemistry. (Prigogine, 1980) He argued that instabilities play an important role in transformative processes and that "most of reality, instead of being orderly and stable and in equilibrium, bubbles and seethes with chaos, change and process".

Across all scientific disciplines and across systems as diverse as cells, neurons and even political systems, it is apparent that

models of discontinuity and nonlinearity provide a window into the organisation of complex systems and the processes associated with (phase) transitions.

There is a type of discontinuity (changeability, discontinuity) called "*critical fluctuation*" during which the system is destabilised on the one hand, but open to new information and exploration of potentially larger adaptive associations and configurations on the other. The system then begins to oscillate between old patterns and newly unfreezing ones until a new dynamic stable equilibrium (attractor) is established and the variability decreases. Periods of increasing variability precede a series of developmental transitions and include motor, cognitive, linguistic development as well as emotional behaviour. Periods of critical fluctuations can thus be used to identify areas of system transitions. (see Hayes et al., 2007)

In this book we focus on the facilitation of quantum-change events and quantum transformation through Eastern traditional methods such as *meditation, mindfulness, yoga and quantum breathing* (pranayama, coherent breathing) on the one hand and *critical fluctuation* due to *perturbation through inner conflict, restlessness/disturbance* and *inner imbalance* due to *lack of tolerance for paradoxes of the contemporary world situation*.

In psychotherapy research, the assumption that change is gradual and linear is still prevalent. Research designs usually correspond to this assumption without fundamentally casting doubt on it. In the "gold standard" of before-and-after measurement with experimental and control groups, individual progression patterns are usually excluded as disturbing "noise" by averaging. This means that crucial information is lost and the signals of characteristic leaps in the development processes are lost from view.

The psychologists W. Miller and Janet C'de Baca (2001) have written a remarkable book on quantum change. It deals with events in the wake of which people have experienced a radical

positive change in their lives. They report on their research findings in a scientific article. (Miller, 2004) Today's psychology does not yet have a name - let alone an explanation - for this phenomenon. The term *quantum change* uses, on the one hand, the quantum physics concept of *quantum leap* and, on the other hand, the *unpredictability* inherent in quantum mechanics.

Quantum changes or quantum transformations typically have the characteristics of living, surprising, benevolent and lasting personal transformations. Quantum transformation is vivid in that it involves an identifiable, characteristic, memorable, unforgettable experience during which the transformation occurred or began. Equally clear is the element of surprise. Quantum transformations are not to be understood as ordinary responses to life events, but they often occur as inner transformations in the absence of a tangible external event. Profound benevolent quality of the event is the third salient feature of this experience. Although the immediate experience can be confusing, sometimes even disturbing, it tends to be based on the overwhelming experience of loving-kindness.

The fourth typical feature of quantum transformative events is their permanence. They seem to be permanent transformations - one-way streets in which there is no going back. More than half of the people who experience a quantum change in their lives are in a state of profound conflict or personal collapse of values and their world at the time of the event. In this state, an insight, a realisation, an intuition emerges unexpectedly, often spontaneously and with great inner certainty and conviction. The transformation is usually accompanied by great emotional liberation and profound relief. (Loder, 1981)

Quantum transformations usually lead to profound and far-reaching changes in thinking, feeling and behaviour. Once we detach ourselves from the assumptions of materialistic worldviews, we can hypothetically conceive of quantum transformations as an encounter with the non-material,

*transpersonal* level of experience. In non-theistic religions such as Buddhism or the Vedas, quantum transformers experience a sacred oneness with all of nature. An encounter with the "sacred" does not necessarily mean that some divine being took the initiative. Members of monotheistic religions, on the other hand, tend to attribute their quantum transformations to a higher divine being ("God"), in accordance with their acquired religious beliefs.

The characteristic experience following a quantum transformation is the comprehensive experience of goodness and love and of total acceptance and coming away from thinking in terms of "I - me - mine" in a self-centred view of the world. Quantum transformation usually leaves a deep impression of compassionate acceptance towards others and oneself. Many suddenly feel motivated to help others, to serve them, and to do so in a different way than before their transformation. A common experience of these people was that *all people are somehow intimately and profoundly interconnected*.

*Psychotherapy research* also shows discontinuities in the changes of symptoms/complaints over the course of therapy. Adele Hayes of the University of Delaware and colleagues found in their studies that while changes were generally treated as if they were gradual, small-step processes, they actually occurred in leaps and bounds, discontinuously and non-linearly. (Hayes, 2007)

Quantum transformations often arise from perturbations. There is evidence that naturally occurring traumatic events and major life challenges can lead to great emotional distress and can completely challenge and upend a person's worldview. Such disturbances can evolve into PTSD, resolve to return to baseline functioning, but they can also serve as catalysts for significant and often dramatic life transitions - paradoxical-opposite or post-traumatic development.

## Measuring the field effect of consciousness

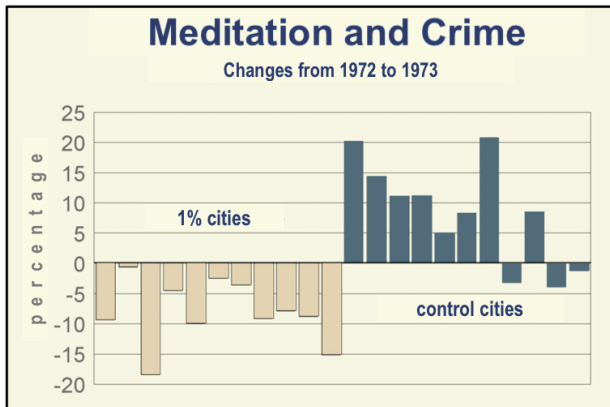
Since the mid-1970s, studies have shown that the environment also changes when people meditate. Currently, the most impressive empirical evidence for a unified field-theoretical description of consciousness is the "Coherence Effect" TM calls it "Maharishi-effect to honour the TM-founder. The Coherence Effect refers to enhanced field effects of consciousness produced by the collective practice of Transcendental Meditation. More than thirty consecutive studies provide strong evidence that the group practice of TM techniques can reduce political violence, crime and other manifestations of social incoherence by only the square root of one per cent of the population. (Aron&Aron, op. cit.)

### *1% - Coherence Effect of Vedic Meditation (TM)*

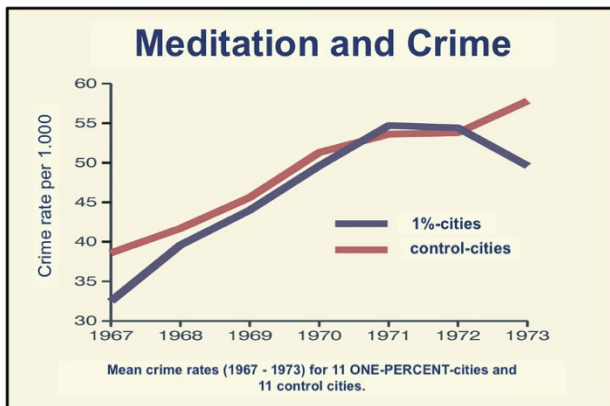
When more than one in a hundred (1%) in a community practice vedic meditation, it affects the collective consciousness: Government statistics recorded significant positive changes in a number of quality of life indices, e.g. fewer accidents, fewer hospital admissions, fewer suicides, less crime. On the left are the results of the first study on meditation and crime: from 1% meditating inhabitants there is a decrease in crime from 1972 to 1973 of minus 8%. Statistically comparable control cities without meditators are subject to the trend of an increase of 7 - 8% annually during the same period. (Borland and Landrith III, 1976).

The results of this pilot study were confirmed a few years later in an extended subsequent study in 48 cities in the USA over a further five years. (Dillbeck M C, et al. 1981) In the years that followed, there was a run on the implementation of further studies on indices of quality of life, in particularly large numbers on

crime and rehabilitation, but also on the pacification of acts of war (Iran, Lebanon, Rhodesia, etc., see Aron&Aron op. cit.).



Results of the first crime study

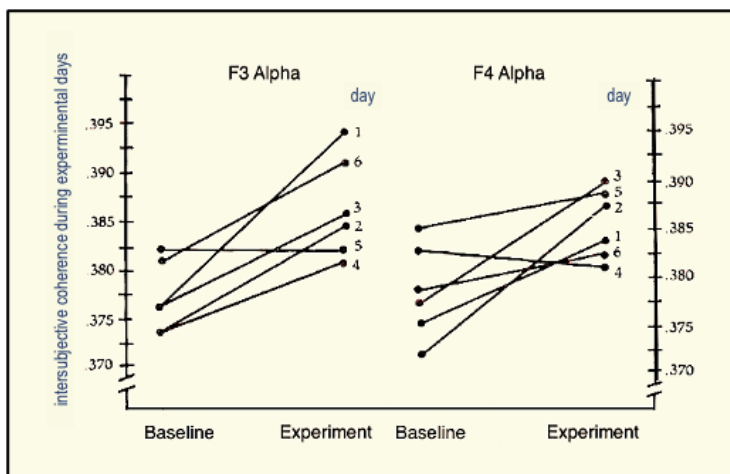


Längsschnitt – Entwicklung der Kriminalitätsrate über mehrere Jahre (beide: Quelle IPPM, following Borland et al.)

In another study, researchers therefore investigated whether a large meditation group of 2,500 meditators over a distance of 1,600 kilometres exerted an influence. (Orme-Johnson, 1982)

The experimental procedure involved measuring the EEG coherence of three meditators in pairs.

In the experimental situation, the subjects meditated simultaneously with the meditators of the distant large group. In the control condition, they meditated at different times. The EEG coherence between the three subjects ("intersubjective") was significantly greater in the alpha and beta bands in time-synchronous meditation with the large group compared to the control condition (meditation at different times).

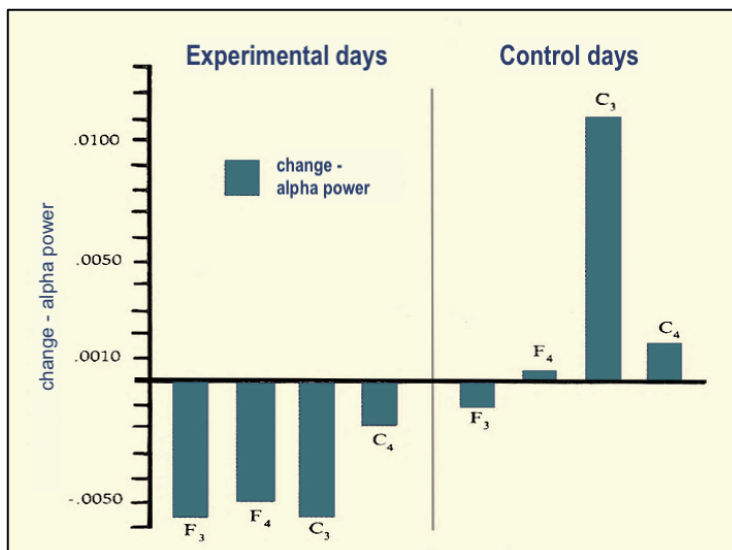


This suggests the question of whether there are any field effects

EEG coherence; pairwise measurements at three Pbd - different (baseline) and simultaneous meditation (experiment). (IPPM, following Orme-Johnson et al.)

at play here. The authors proposed to view consciousness as a fundamental underlying unbounded field that is enlivened by the collective meditation of many practitioners. A comparatively small number of meditators - namely 1% - is sufficient to

trigger an increase in coherence in the collective consciousness of society.



TM researchers were among the first to conduct studies on co-

Changes in alpha power for experimental days (left) and control days (right) (IPPM, following Orme-Johnson et al.)

herence as a field effect of consciousness in the seventies and eighties. However, they were so far ahead of their time that today, decades later, their publications are little known or disseminated.

But - we regret the tendency of the TM movement to monopolise TM and the philosophy behind it, which has become increasingly cult-like over the decades and runs counter to the basic idea of the philosophy of Advaita-Vedanta.

Measuring the field effect of meditation



The TM University MIU in Fairfield (IOWA, USA) organised a major meditation event in 2006 for practitioners of TM and "Super Radiance Techniques", which are sidhi techniques from the Yoga Sutras based on TM.

The number of participants was almost 2500 in August and between 2100 and 2200 in July and September. We explain the Random Number Generator (RNG) in more detail in the next chapter.

We let Roger Nelson report in his own words (Nelson, 2018):

"Here we can only hypothesise: The collective, coherent consciousness of the group meditating together creates a kind of information field that changes the random sequence of the generator so that it is more structured. An order occurs in the number sequences that clearly deviates from the norm and should not actually be. ....

So something is clearly happening that can be scientifically measured but not yet explained. This is fascinating and shows that meditation must have a subtle but definite effect. Many people who meditate report becoming one with themselves, positive energies and reaching a level of consciousness that was previously unknown. To doubters who have not believed in the effects of meditation so far, I can say on the basis of our experiments: something really does happen, and not only with us, but also with our environment, and probably even beyond that.

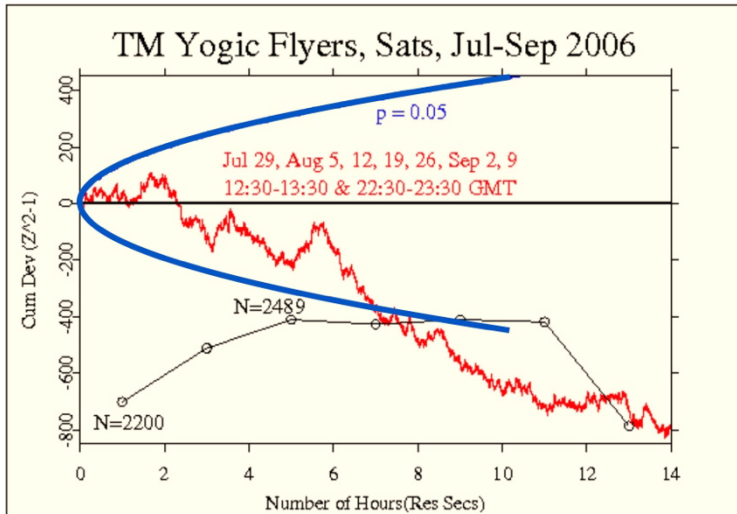
Especially when large, uniform groups meditated, this effect could be measured particularly clearly. We found that the results were strongest in larger groups that were intensely focused. A strong, coherent effect set in.

One of the most fascinating meditation experiments I did was with two meditation groups, one of which was in Iowa and the second in Washington, D.C. In case you don't know the topography of the U.S. that well: Iowa is pretty

much in the middle of the country, Washington in the very east. There is a distance of about 1,600 kilometres between them. Both groups consisted of experienced TM siddhi meditators. In Buddhism and Hinduism, siddhi refers to certain supernatural powers and abilities that one attains through spiritual practice. These Siddhi practitioners gathered in the summer of 2006 and meditated for practically the entire summer. The idea was to see if it was possible to positively affect crime rates and other social indicators through their meditation. Perhaps the effects would even extend to my random generators.

The result surprised us all: yes, it was possible. Our network of random generators showed particularly significant deviations from the norm during those measurement periods we selected. The extent of the deviation correlated with the number of people who gathered to meditate. This means that the more people meditated, the stronger the effect. At peak times, almost 2,500 people, all experienced Siddha practitioners, were meditating simultaneously."

The following diagram shows the associated RNG results.



RNG - Results of the Super Radiance Programme 2006 (Source: IPPM, after Nelson)

The mean expected value lies on the zero line around which random measured values normally scatter. The blue lines indicate the significance limits. Values on or further away from the zero line are considered "significant deviations" with a maximum probability of 1/20 ( $p \leq 0.05$ ) for purely random deviation. Scientists have agreed to consider such deviations from the expected value as "significant" - i.e. "no longer purely random". It is then assumed that there is a special reason beyond chance for such a low probability deviation.

The red line of "random numbers" generated during the "Super Radiance Programme" clearly exceeds the 5% limit at the bottom, so the deviation is to be rated as significant. It is also impressive to see its gradient towards the lower right, which describes a steadily progressive deviation of the random numbers

from the expected value. Roger Nelson comments: "This analysis in particular looks promising as an objective measurement and speaks to the evidence of effects of a field of consciousness." (<http://global-mind.org/tm.resonance.html>).

In the following chapter we report in more detail on our own studies with the Psyleron RNG, which we have run in situations as diverse as transcendental Vedic or mindfulness meditation, dynamic emotional group events, various breathing techniques.

## **Coherence measurement with the Random Number Generator (RNG)**

*Global Coherence is Hardly Random*

Roger Nelson

### ***History of RNGs.***

The following text is partly based on the user manual for the Psyleron RNG.

Einstein had taught at Princeton University after emigrating from Germany and it was here that the PEAR project (**P**rin**c**eton **E**ngineering **A**nomalities **R**esearch) took place. It investigated whether and to what extent people are able to influence random events. The original aim was to identify disturbance variables in industrial processes that caused considerable costs. (Jahn R & Dunne B, 1999, 2011) The psychologist Prof. Roger Nelson, an early collaborator of the PEAR project, together with the PEAR team developed random number generators, so-called RNGs (Random Event Generators), here consistently called RNGs (Random Number Generators), which means the same thing.

Large and unwieldy in the beginning, they were later small and easily transportable devices. An RNG uses the Electron Tunnel Effect, which is based on quantum mechanical effects. Since the late nineties of the last century, Nelson has been investigating whether, and if so, how much events that move a lot of people influence these RNGs, in that the random numbers generated deviate further and further from the statistical expected value.

### ***Wie arbeitet ein Random Number Generator ?***

It is useful to think of the RNG as an electronic coin toss. Just as a tossed coin randomly produces heads or tails, the RNG produces a binary result - only instead of heads or tails, it produces

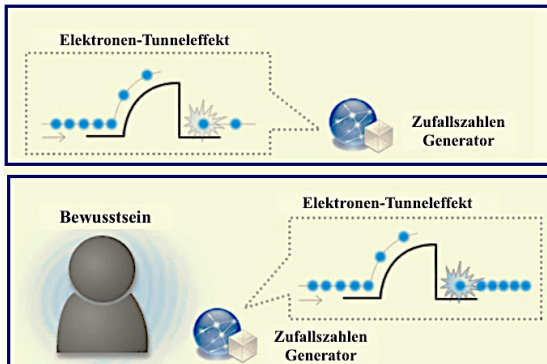
a one (1) or a zero (0). Each 1 or 0 is the result of a random event, hence the name "Random Number Generator" (RNG).

Unlike the coin toss, however, the RNG measures fluctuations based on quantum processes that we know are fundamentally random.



Psyleron RNG (Quelle: IPPM)

According to modern physics, it is fundamentally impossible to predict the outcome of quantum events. Although the RNG does not output quantised ones and zeros, they are nevertheless representations of quantum events that are converted into binary results by *quantum tunnelling*. Statistically tested, these binary events behave completely randomly.



Functionality of an RNG, (Source: IPPM, according to Psyleron)

Unlike a coin, which can be affected by physical effects and environmental conditions such as wind, humidity, an imbalance in the coin and the technique of tossing, the RNG is not subject to any known physical forces. It really is random.

The function of the RNG is subject to the rules of quantum mechanics. At this level, the results are fundamentally uncertain and influenced by observation.

It is known that quantum objects interact with each other over large distances in space. This interaction over large distances is called entanglement or quantum coherence. For example, it is possible to prepare two particles in a single quantum state and separate them by any distance. The two particles have either a positive or a negative spin. When an observer changes the spin of one particle, the other particle "knows" about it and changes its spin. This communication is "instantaneous", that is, instantaneous. Einstein called this anomaly a "spooky action at a distance". He refused to believe it because it violated his special theory of relativity, since it implied communication between two particles above the speed of light.

PEAR research suggests that experimental subjects can influence RNGs from which they are distant in space and time. For

example, subjects in different parts of the country were instructed to influence the RNG from their location thousands of kilometres away from the lab. They were also instructed to influence an RNG that will run sometime in the future or one that ran sometime in the past. Under these circumstances, the subject's performance was comparable to that observed when it was not spatially or temporally distant.

Some researchers believe that quantum mechanics can explain the phenomenon. In the chapter on "Coherence and Synchronicity", we have already discussed the generalised quantum theory in detail.

Over the years, there were 40 to 60 such RNGs among scientists spread around the globe. They were constantly connected to Princeton and ticked their measurement data there. The data was collected there and served as source material for further calculations. Roger Nelson thus founded the GCP Global Consciousness Project.

Typical major events with strong RNG reactions were the death of Princess Diana, the collapse of the Twin Towers ("9/11") and many more. In many of these emotionally moving major events, the globally distributed RNGs reacted strongly worldwide. All data are available on the Princeton University server: <http://noosphere.princeton.edu>.



### ***The IPPM's RNG measurements***

Over the years we have carried out RNG measurements on a variety of occasions. The topics of interest to us have been the generation of coherence on occasions as diverse as

- Vedic Meditation ("TM") on site,
- Collective group meditation with participants at a distance
- Coherent Breathing / holotropic breathing / rebirthing
- the resting phase after Coherent Breathing
- Group dynamic processes

The occasions were partly energetically activating as in *coherent / holotropic breathing* and *group dynamic situations*. On the other hand, they were also deactivating, going into stillness and creating a deep state of rest, as during the *resting phase after breathing* or *during meditation*. We considered the finding of trends, correlations, patterns and significant deviations from the expected value as a sign of *increased coherence*. We did not mark all cases and it may well be that some of the marks are our own misinterpretations.

We see the various occasions such as *breathing, resting, group dynamics, group meditation* or *joint group meditation with participants from distant places and regions* as a means of generating a *social field of consciousness of heartfelt togetherness*. The participants take part in this field of consciousness by helping to generate it themselves. Our RNG measurements thus eavesdrop on the collective field of consciousness of our planet. They make the invisible visible and show us the effects of meditative and/or group dynamic measures.

We are now certain that these energising exercises of peaceful togetherness also have effects "around us". The formula found

in scientific studies describes the approximate strength of the consciousness-raising coherence effect. It reads:

$$n^2 \times 100$$

With four participants, about 1,600 people in the vicinity benefit from the coherence effect, with three participants about 900 and so on.

Non-violence, peacefulness is called ahimsa in yoga .....

अहिंसा

and the peacefulness of the individual is the basis for peace.

A large part of this book consists of "appendix" in which we summarise our RNG measurements.

We paid particular attention to significant ( $p < 0.05$ ) deviations from the expected value (red circles). In these cases, the probability for a deviation of the random numbers from the expected value in this order of magnitude is maximum 1/20.

One of the criteria that caught our attention were striking slopes or rises in the RNG sequences (marked in blue). Roger Nelson treats striking rises or falls as indicators of directional trends rather than pure chance. We, too, tend to see in these cases in principle an indication or information. However, we do not know from what this information is fed - it can be temporally or / and spatially near or distant events, if we consider the qualities of the quantum field of consciousness. However, we have to imagine our "local" events as embedded in these "non-local" "acausal" fields, but also influencing them vice versa.

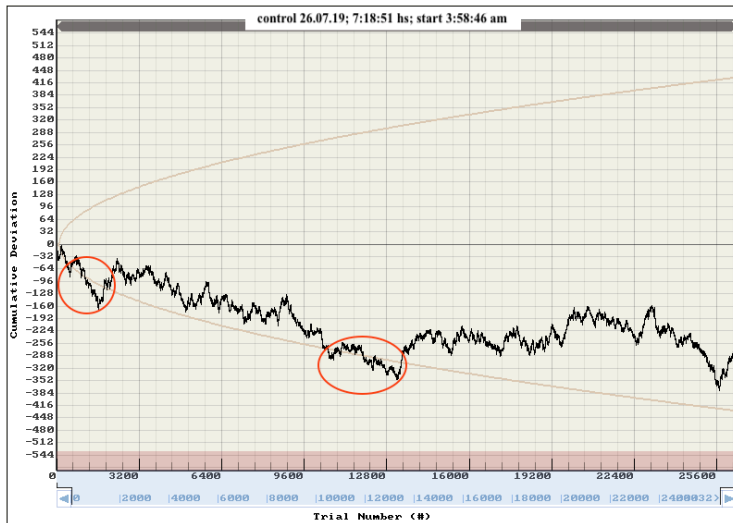
So, unlike Nelson, we speak less of the "noise" in which the information we are interested in disappears, and more of unconceived and unknown non-local influences, the nature of which

we know nothing about, but which are included in our RNG measurements at all times.

They seem to "interfere" with our approaches to research, which are still searching for causal connections due to a long Aristotelian-rooted Western tradition of thought. However, we now tend not to see them as "noise" and disturbance. We now rather suspect that they are due to our ignorance, our limited knowledge of non-locally effective events that happen "somewhere", since in our universe "everything is connected with everything", and there is nothing that could "fall out of it in isolation", so to speak, and lead a life of its own without reference to the whole.

We also planned RNG "control measurements" outside the sessions we were thematically interested in. Therefore, we ran the psyleron RNG for 7 hours on one day, starting shortly before 4 am, and again for about 5 hours on the same day, starting around 2 pm.

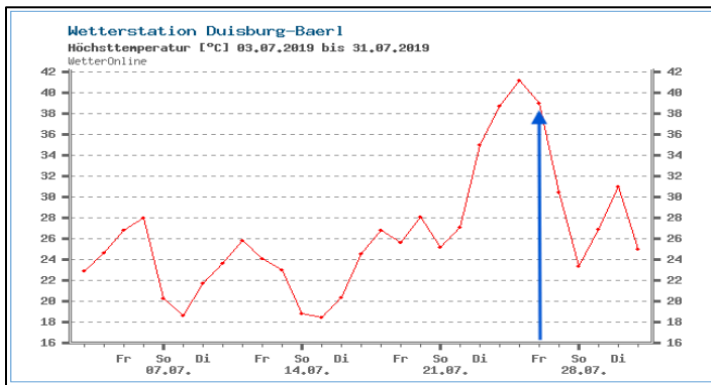
The results of our first two control measurements left us in doubt as to whether everything had been done correctly. A check showed that this day was one of the hottest in Germany since the beginning of the temperature measurement, the values reached 39 to 40 degrees. We are not used to such temperatures here. These were exceptional situations for a large part of the population!



RNG 01: Kontrolle (1)



RNG 02: Kontrolle (2) 26.07.2019



Temperature at the Lower Rhine on 26.07.2019

Other media reports on the day were:

- 70 people drowned off the coast of Libya
- rescued from cave in France
- Boris Becker loses his driving licence
- Volcano in Indonesia spews again
- Frightening picture from Syria goes around the world
- Fake policemen steal 700 kilos of gold in Brazil
- The Rock fights for a sanctuary in Hawaii
- Father and two daughters die in house fire
- 73-year-old survives four days in the desert

So there were many occasions on that day that could have had an effect on the collective field of consciousness. Consequent conclusion: Due to the non-locality of the influences on the RNG, it does not seem to be easily possible, and it is probably even impossible in principle, to establish a "real genuine" control situation at all, as it would correspond to previous scientific thinking. At any time, something can happen somewhere that influences the global field of consciousness to a greater or lesser extent. The decisive question is therefore what is the focus of a

study in each case. Repeated measurements are one of the possibilities to make the influence of specific events on the random distribution visible. In the case of RNG measurements, however, due to non-locality, each measurement is strictly speaking an unrepeatable unique specimen (one-off), as the records of Roger Nelson's Global Consciousness Project show.

The control conditions familiar in our previous studies on meditation and psychotherapy, which often cannot be achieved according to the "gold standard", were not appropriate here, it quickly became clear to us during this first attempt. The gold standard usually involves randomly assigning subjects to the experimental and control groups.

"Control measurements" virtually contradict the point of using a random number generator as a detector of events at the level of consciousness. We were held up a mirror, as it were, to how the attempt to "produce a clean control condition" turns out. A search for "harmless data series" as a comparison or control condition would have meant a way into manipulation. We will see later that it makes more sense to compare different types of events.

Our alternative to "control" measurements were comparisons of measurements of groups of different themes, e.g. *emotional group dynamics*, *group meditation*, *joint meditation* with participants from different distant (up to 800 km) places, *Coherent Breathing*. These events are partly about physiologically activated, but also meditative and activity-reduced states.

Inspired by Roger Nelson's interpretation of the "TM Super Radiance Programme" in the previous chapter, we have highlighted overshoots of the significance threshold or striking patterns that we regard as *trends*. These primarily include *significant deviations from the expected value*. They are marked in red (circles or ovals). Secondly, there are *striking gradients or slopes*, which we have marked with blue arrows or dashes.

In addition, the decline of the random curve from Coherent Breathing to the resting phase is repeated in one way or another in most sessions. Roger Nelson had already found that meditative processes were predominantly associated with downward deviations from the expected value.

We have the impression that the accompanying measurements for the different occasions such as Coherent Breathing, breathing, resting, meditation, group dynamics or therapy show specific "concise" patterns. The group dynamic measurements are particularly striking; they show strong upward swings (deviations from the expected value) or unexpected drops or rises (see blue arrows), especially in strong emotional situations.

We assume that the usual logical-rational approaches of the thinking patterns we have used so far are not suitable tools for a fruitful work with the data series of RNGs. In the meantime, however, it seems clear to us that especially strong emotional involvement or "charge" leads to clear upward swings away from the expected value. Meditative and calm states, on the other hand, are usually associated with a drop in the curve.

## **On the philosophy of "zeros" and "ones"**

We have not yet found any studies in the literature in which authors have considered whether, and if so, what significance might be attached to clustered sequences of zeros or ones in RNG measurements, as we encounter them in reasonably continuous trends such as slopes (preponderance of zeros) or slopes (preponderance of ones).

When programming the psyleron, a brown curve was set to  $p = .05$  as a significance threshold. If this is exceeded upwards or downwards, it means that the probability of the deviation is less than 5%, i.e. it is considered significant - the scientific term is significance.

In addition, in rare cases there are also "patterns" such as rise followed by fall or vice versa, but we do not want to interpret these at the moment.

For us, both - significant rise and fall - are simply information.

The predominance of zeros in the case of a slope or ones in the case of a rise in the curve has so far usually not been attributed any further significance per se beyond the decision for or against significance. This made us wonder, since zero and one are two philosophical and mutually incompatible worlds. We first dive into the strange number "zero" - "0".

### ***Sunya - the void***

"Emptiness does not mean that nothing exists ... What is meant by emptiness is rather the interdependent nature of reality ... Appearances arise in dependence as a result of interdependent relationships between causes and conditions - the appearances have no real (enduring but merely transitory) reality, therefore they are empty, *empty of an independent and inherent (super-enduring) existence* ... To recognise this view is *Madhyamika*, the Middle Way. In the search for a (permanent) "core" of the manifestations, nothing can be found ... From increasing insight into emptiness as the ultimate nature of reality, a perception



develops through which you recognise phenomena and events as a kind of illusion, and this mode of perception will extend to all your interactions with reality." (Dalai Lama, 2005; insertions by the authors).

The self or 'I' does not exist in the common understanding. The self is empty (contentless) of an essential beingness. Adherents of the middle way teaching (Madhyamika) maintain that not only the self, but any existent is ultimately empty of any inherent reality. Thus, emptiness of true existence is held to be the fundamental mode of existence and reality.

To perceive this on the direct experiential level itself has enormous therapeutic value. It not only cures emotional and psychological problems, it also frees us from the clutches of any unhappy attachment including passionate obsession, compulsive aversion and compulsive ignorance." (according to Geshe Ngawang Samten, 2005)

The *Madhyamaka* teaching of the *Middle Way* distinguishes between *conventional* and *ultimate* truth. Although all things are empty from the ultimate analytical perspective, they exist *conventionally*. However, they exist only nominally, in terms of agreement and labelling according to conventional identification.

*Sunya* in the *Vijnana Bhairava* of *Kashmiri Shaivism* refers to the spatial or temporal gap between any two things, events or experiences (also called *madhya* or *sandhi*). Awareness of this gap or intervening void is one of the most essential spiritual techniques of nondual Shaivism. The path to attaining spiritual fullness and perfection is the path of complete emptiness, of attaining the form of emptiness (*sunyakara*). The Buddhist philosophical concept of the emptiness of all things is not absent from *Vijnana Bhairava*: "How can the unchanging Self have any cognition or activity ? All external objects depend on our cognition of them. Therefore, this world is empty." (*Vijnana Bhairava*, verse 134). Nevertheless, the difference with

Buddhism is that meditation on emptiness leads to merging with the ultimate reality, which is referred to in the Upanishads only as tat ("THAT"). In this state of non-dual emptiness, the Self lights up or reveals itself. This is a state of utmost fullness. (following Bäumler, 2005)

Emptiness is not nothing but simply the absence of qualities. 'No-thing' means 'there is no thing'. Where 'no-thing' is, where there is nothing, there is immense space for everything possible. *Sunya*, as the source of all life and creativity, brings forth all forms of life in the world of appearances. The void is the womb of inexhaustible creative potential and a vortex of movement and energy. The ancient Sanskrit word for emptiness is *kha*, the still centre of a turning wheel. This still centre enables all movement and dynamism; it is the unchanging centre of the changing world (*svastika*). In this sense, it is the hub and network of reality. Sunyata is the heart that holds the world of phenomena together in harmony and order.

In contrast to Hinayana, where the individual strives for perfection, the Mahayana tradition emphasises the *bodhisattva* ideal. It means dedicating one's whole life and activities to the task of saving the world before one attains liberation oneself. Love and the salvation of every sentient being are at the top of the list. Salvation here is not individual, but integral and includes the whole reality, because the deeper meaning of being is the community of beings. The non-duality of Mahayana is completed in the paradox of the identity of *nirvana* (liberation) and *samsara* (world of attachment and cyclical return), the non-distinction of unmanifest and manifest. In summary, emptiness is the node and network of the community of beings that are intertwined and interdependent in terms of being.

Similarly, there is a continuum between object and subject in a cosmic network of relations. A "physics of non-localisation" has replaced the "pure objectivity of classical physics".

"Subject" and "object" are inviolable twin poles of a relationship. Seen in this way, reality is ultimately relationship. (Following A. Kalliath, 2005)

Kalliath refers to the scientist Robert Lanza:

"Scientists - especially quantum physicists - claim that perfect objectivity in scientific methodology is outdated. They speak of a 'physics of non-localisation', which states that reality cannot ultimately be 'localised' in analysis ... 'Quantum consciousness' is currently a boldly discussed concept in the dialogue between science and religion. The American researcher Robert Lanza, for example, says that according to the quantum perspective of reality, the mind of every human being on earth is instantaneously connected to each other, past, present and future, as part of every mind that exists in space and time. To understand reality in terms of parts is a reductionist view, whereas the notion of 'quantum consciousness' holds that the 'whole is greater than the sum of its parts'."

Robert Lanza is an American scientist best known for his research on stem cells. He founded biocentrism ("bio-centricity"). (Lanza, 2010; for more details see pages 55 ff).

The *negative theology* of Christianity sees God as the "(Divine) Nothing"; it begins with the first bishop of Athens, Dionysius Aeropagita, who was converted by Paul: "We see God not only through knowledge but also through non-knowledge ... God is neither understood, nor explained, nor named. He is nothing that exists, but he is also to be seen in everything that exists. He is 'All in All' and yet everywhere he is nothing. He is seen by everyone in everything and at the same time He is seen by everyone in nothing ... We can say that the Ground is neither soul nor spirit; imagination, opinion, reason or thought cannot be attributed to it, nor can it be equated with thinking or understanding, nor can it be expressed or even thought. It is neither

number nor order, neither great nor small, neither sameness nor dissameness, neither similarity nor difference. It has no fixed position, nor is it in motion, nor is it motionless ..." (according to A. M. Haas, 2005)

Similarly, Meister Eckhart refers to the *Divine Nothing* in Sermon 71: "Likewise, when I say God is a Being, that is not true: He is a transcendent Being, and a super-essential Nothing." Eckhart interprets Paul's blindness at his conversion in word-play as Paul seeing (the Divine) *Nothing*: "Saul got up from the ground and - with his eyes open - he saw (the) *Nothing*."

### ***Sunya in the Vedic tradition***

Various commentaries on the Vishnu Sahasranamam of the Vedic tradition give the meaning of shunya as follows: (Rangamannar Vadigepalli, 2017)

„*The Void*. Here Void means the *total absence of* (a) *the equipments-of-experiences-the body-mind-intellect*; (b) *the fields-of-experiences-the objects- emotions-thoughts*; (c) *the experiencer-attitudes-the perceiver-feeler-thinker personality*. In Brahman, the Pure Consciousness, all these three (a, b and c) are totally absent as the devotee of Hari transcends them all. So the Lord, in His Infinite Nature, is ‘without attributes;’ seemingly then, He is the „Void.” This is not „non-existence” of the Buddhists. This is *Pure Existence without the object-emotion-thought world-the Self*, Sree Narayana.”

### ***Sunya as the number Zero***

Asian Development Bank Principal Financial Sector Specialist Arup Chatterjee explains the history of the development of the number zero:

The Buddhist concept of sunyata may have influenced the idea of zero. While sunyata is generally interpreted as

emptiness or absolute nothingness, the Buddhist concept of sunyata is relativity, conditionality.

Sunyata in no way denies the idea of existence as such, but asserts that all life and its constituent elements that make up existence are dependent on causes.

The Buddha's teaching explains sunyata as follows:

"This is the concept that everything has neither substance nor permanence, and it is one of the fundamental points in Buddhism. Since everything depends on causation, there can be no enduring ego in the sense of substance. However, one should not hold to the concept that every thing has a substance, nor that it does not. All being, whether human or non-human, is conditioned (in relativity, that is, related to something). Therefore, it is unwise to hold to any particular idea or ideology or concept as the only absolute (true) thing."

Sunyata refers to emptiness or absolute nothingness. On the other hand, zero is understood as a number between positive and negative numbers. This also corresponds to the Buddhist concept of sunyata, which means relativity.

The first, greatest and deepest Buddhist thinker of "emptiness", the Indian philosopher Nagarjuna, founded the school of Madhyamika, the "Middle Way". It is very likely that the concept of zero (shunya), essential to mathematics, is derived from Nagarjuna's philosophy of emptiness.

Goppold on this (Goppold, 2013):

"In the translation, I would like to keep shunyata as a terminus technicus. There is no point in trying to translate it. Its emptiness works better the less meaning we interpret into it.

By clearly understanding that there is no absolute essence to which shunyata points, we realise that when shunyata is described as inexpressible, un-imaginable, and devoid of

any designation, this does not imply that there is a thing that has these designations as characteristics. Shunyata is insubstantial and unknowable. Insubstantiality does not mean "non-existence", but merely the denial that things are real by themselves. Therefore, insubstantiality does not mean a state of unconsciousness; rather, it serves to contain the tendency to reify phenomena through conceptualisation. Therefore, shunyata itself is empty in both the ontological and epistemological sense. It is empty of any self-sufficient being, and it is beyond both characterisations of "empty" and "non-empty". Only by keeping both sides in mind can we see how Nagarjuna relates the "emptiness of the phenomenal world" to the "emptiness of any absolute entity or assumption".

Goppold uses the term "kenomén" for this, which means something like "thinking in blanks". "The honesty and sincerity, and thus ultimately the correctness, of any knowledge can only be assured by making its voids visible...." He quotes Gotthard Günther on this:

The history of consciousness of the Occident and of the world-historical epoch to which Europe belongs has come to an end. Bivalent thinking has exhausted all its inner possibilities, and where new spiritual principles are already beginning to develop, they are forcibly interpreted in the old classical scheme that has long since become too narrow. One cannot discard an old logic like a threadbare dress. The transition from the classical Aristotelian form of thinking to a new and more comprehensive theoretical state of consciousness requires a mental metamorphosis of the entire human being. A trans-Aristotelian type of human being must correspond to a non-Aristotelian logic and to the latter again a new dimension of human history.

Like other controversial ideas, the concept of "zero" was initially met with scepticism. It took several centuries for zero to

reach the West from the East and Middle East. Although in common usage zero denotes "not being there", i.e. non-availability, it also has the quality of being "nothing", i.e. non-existence. It was this quality of zero that puzzled the ancient Greeks. They wondered 'How can nothing be something ?' and this led to philosophical and religious arguments about the nature and existence of zero and vacuum in the Middle Ages.

According to Hindu philosophy, one practices meditation to reach a state of absolute nothingness and peace. On the other hand, the nirvana of Buddhism refers to the attainment of salvation in mergeance with the void of eternity.

*Sunya* has since changed our world and revolutionised everything from the basic mathematics of a balance sheet to the amazing successes of modern science.

*Generalised quantum theory* (Atmanspacher et al, 2002; Walach et al, 2011) also requires the practice of a new way of thinking - at present, our thinking is always in danger of falling back into old schemata and searching for irrefutable logical-rational "evidence". But this cannot be done with the levels near pure potentiality (quantum level, zero-point field). It requires an open mind, creative intuition, an associative, spontaneous and unsystematic approach.

### ***The ONE is SOMETHING***

and thus differs fundamentally from zero as emptiness, which merely indicates absence (of something-anything). In number symbolism, ONE stands for EVERYTHING, for the beginning or for GOD. The digits "0" and "1" are the basis of the binary system (system of two or dual) with which all numbers can be represented. The dual system is the basis for digital technology, without which today's computerised world would not exist.

The German philosopher, mathematician, jurist, historian and political advisor of the early Enlightenment Gottfried Wilhelm Leibniz was a universal spirit of his time and one of the most

important philosophers of the late 17th and early 18th century; he states in a letter to Duke Rudolf von Braunschweig-Wolfenbüttel dated 2 January 1697 (WIKIPEDIA):

"... For one of the main points of the Christian faith ... is the creation of all things out of nothing by the omnipotence of God. Now it can be said that nothing in the world better illustrates this, indeed, demonstrates it, as it were, than the origin of numbers as it is presented here, *through whose expression only and solely with one and zero (or nothing) all numbers come into being*. It would be difficult to find a better model of this mystery in nature and philosophy... This is all the more appropriate here, because the empty depth and desolate darkness belong to zero and nothing, but the Spirit of God with its light belongs to the almighty One. Because of the words of the allegory, I have pondered for some time and finally found it good to set this verse: To develop everything from nothing suffices One (Om-ni-bus ex nihilo ducendis sufficit unum)."

### ***Reversing the interpretative path***

We therefore suggest that measurements should not be seen simply as confirmations of events whose qualities and characteristics one believes to know beforehand. On the contrary, patterns and significances should in principle be regarded as indications of events, some of which remain mysterious, and to examine whether and to what extent the embedding of the concretely investigated events (breathing, meditation, group dynamics, etc.) can claim plausibility as embedded in the larger context.

Since we, as researchers, consider ourselves to be "colour-blind" in our own matters, we welcome feedback and comments from readers and fellow researchers.

In this book, we present the complete summary of the RNG measurements made over the course of about a decade from



- Sessions of Coherent Breathing,
- Group meditations locally,
- joint group meditation with participants from distant places and regions
- group dynamic processes.

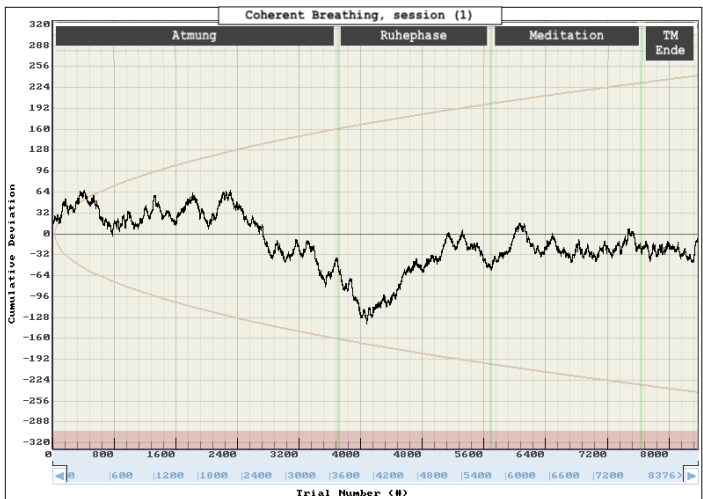
We start with an overview of Coherent Breathing sessions, followed by some recordings of group dynamic sessions, then representations of joint group meditation - i.e. participants were distributed supra-regionally in Germany.

In *Coherent Breathing*, the duration of breathing in all measurements is about 60, that of the resting phase 45, later 30 minutes and that of meditation about 30 minutes. Other times - initial, precontrol (pre-control), postcontrol (post-control) and sharing (exchange, group talk) - are variable.

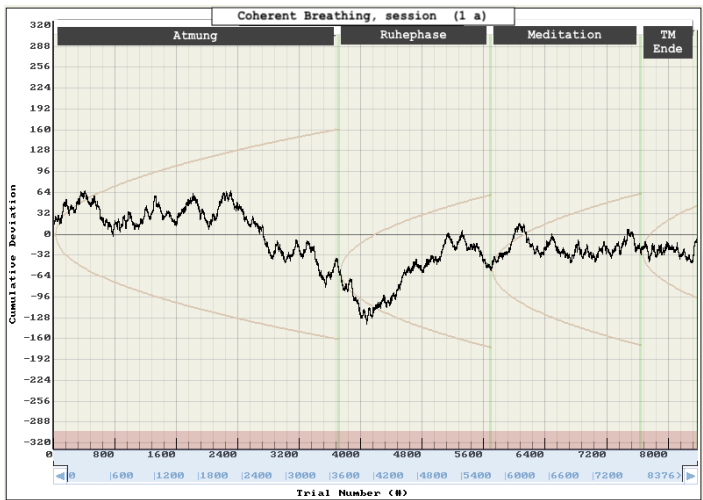
We therefore have (apart from pre- and postcontrol) already in the core sequence of Coherent Breathing: "Breathing - resting phase - meditation" three strikingly different events whose RNG patterns can be compared with each other. In addition, there are the energetically impressive group dynamic sessions, mostly with upward deviations, and the supra-regional mediation events with up to 25 participants who were up to 800 km away.

# The RNG measurements

## Coherent Breathing



RNG 03: Coherent Breathing Session (1), entire



RNG 04: Coherent Breathing, session (1 a), entire, with single segments



RNG 05: Coherent Breathing (1 b), entire; Highlighting patterns (blue) and significant deviations (red)



RNG 06: Coherent Breathing (1 c), Segment Breathing; Highlighting patterns (blue) and significant deviations (red)



RNG 07: Coherent Breathing (1 d), Segment Resting Phase; Highlighting patterns (blue) and significant deviations (red)



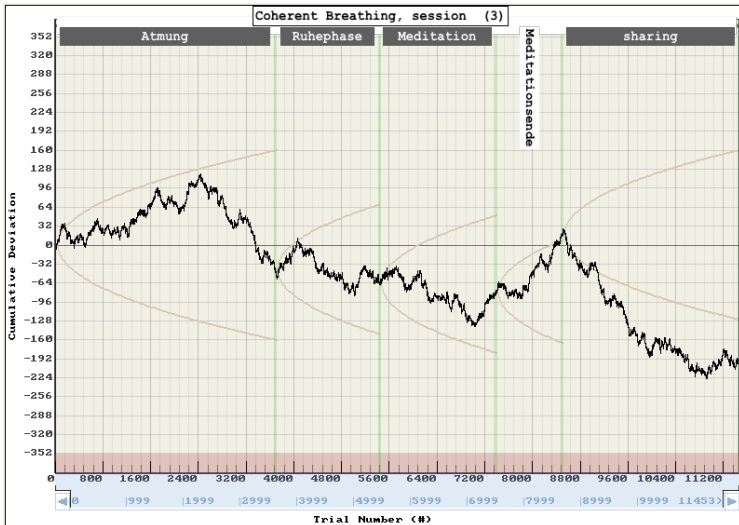
RNG 08: Coherent Breathing (1 e), Segment Meditation; signifikante Abweichungen (rot)



RNG 09: Coherent Breathing (2), entire with single segments.



RNG 10: Coherent Breathing (2 a), entire, Highlighting patterns (blue) and significant deviations (red)



RNG 11: Coherent Breathing Session (3) entire, mit Signifikanzgrenzen



RNG 12: Coherent Breathing Session entire (3 a); Highlighting patterns (blue) and significant deviations (red)



RNG 13: Coherent Breathing Session (3 b), Segment *Sharing*; Highlighting patterns (blue) and significant deviations (red)



RNG 14: Coherent Breathing Session (4), entire



RNG 15: Coherent Breathing Session (4 b), entire with segments; Highlighting patterns (blue) and significant deviations (red)



RNG 16: Coherent Breathing Session (4 c), Segment Breathing. Highlighting patterns (blue) and significant deviations (red)





RNG 17: Coherent Breathing Session (5), entire with segments.



RNG 18: Coherent Breathing Session (5 a), entire. Highlighting patterns (blue) and significant deviations (red)



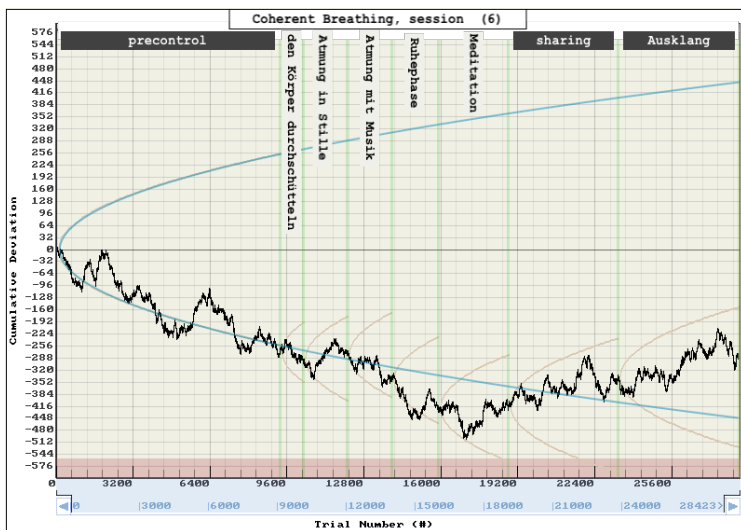
RNG 19: Coherent Breathing Session (5 b), *initiales Segment* Sharing (Initiales Segment, vorher). Highlighting significant deviations (red)



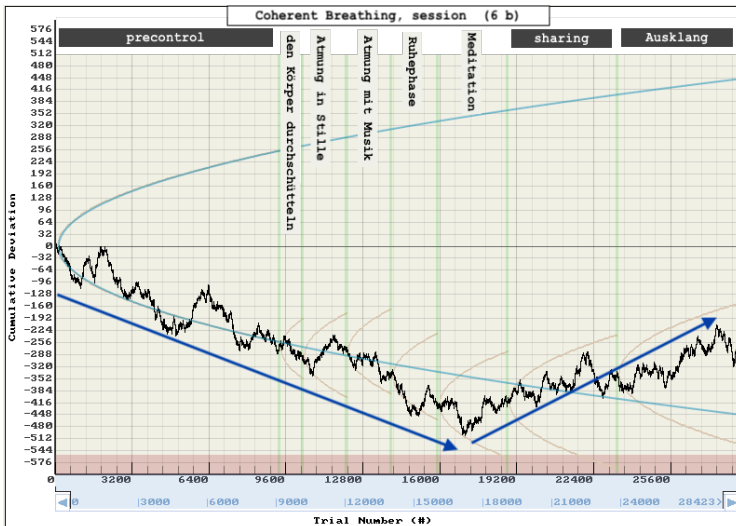
RNG 20: Coherent Breathing Session (5 c); Segment Resting Phase; Highlighting patterns (blue) and significant deviations (red)



RNG 21: Coherent Breathing Session (5 d); Segment Sharing; Highlighting patterns (blue) and significant deviations (red)



RNG 22: Coherent Breathing Session (6) entire



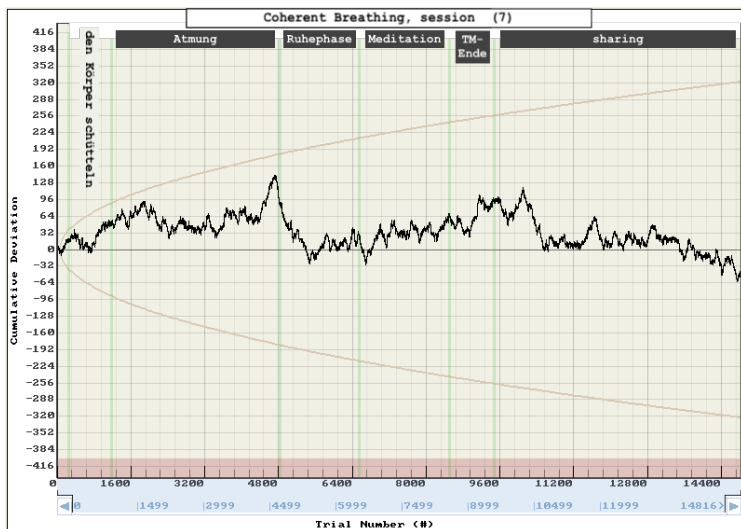
RNG 23: Coherent Breathing Session (6 b) entire, Highlighting patterns (blue)



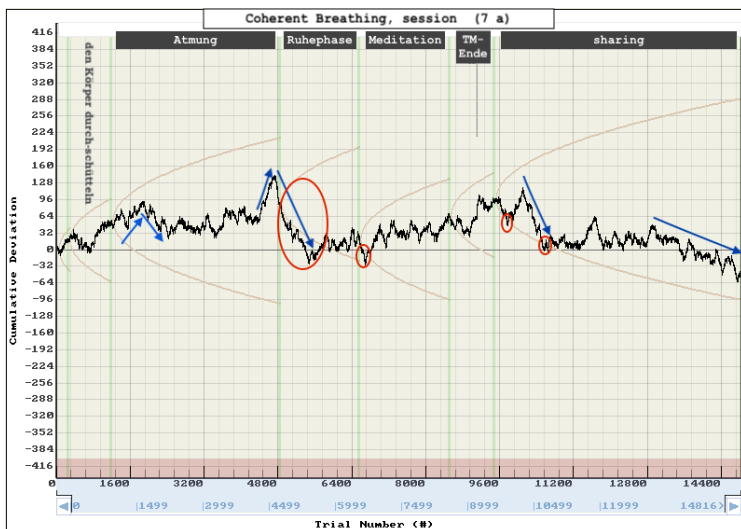
RNG 24: Coherent Breathing Session (6 c) entire; Highlighting patterns (blue) and significant deviations (red)



RNG 25: Coherent Breathing Session (6 d) Segment Resting Phase; Highlighting patterns (blue) and significant deviations (red)



RNG 26: Coherent Breathing Session (7); entire.



RNG 27: Coherent Breathing Session (7 a) ; entire with segments. Highlighting patterns (blue) and significant deviations (red)



RNG 28: Coherent Breathing Session (7 b) Segment Resting Phase; Highlighting patterns (blue) and significant deviations (red)



RNG 29: Coherent Breathing Session (8), entire



RNG 30: Coherent Breathing Session (8 b) entire; Highlighting patterns (blue) and significant deviations (red)



RNG 31: Coherent Breathing Session (8 c), Segment Breathing; Highlighting patterns (blue) and significant deviations (red)



RNG 32: Coherent Breathing Session (8 d), Segment Resting Phase; Highlighting patterns (blue) and significant deviations (red)





RNG 33: Coherent Breathing Session (8 e), Segment Sharing; Highlighting significant deviations (red)



RNG 34: Coherent Breathing Session (9), entire



RNG 35: Coherent Breathing Session (9 a), entire; Highlighting patterns (blue) and significant deviations (red)



RNG 36: Coherent Breathing Session (9 b), Segment Resting Phase; Highlighting patterns (blue) and significant deviations (red)



RNG 37: Coherent Breathing Session (9 c), Segment sharing; Highlighting patterns (blue) and significant deviations (red)



RNG 38: Coherent Breathing Session (10); entire



RNG 39: Coherent Breathing Session (10 a); Highlighting patterns (blue) and significant deviations (red)



RNG 40: Coherent Breathing Session (10 b); Segment Breathing; Highlighting significant deviations (red)



RNG 41: Coherent Breathing Session (10 c); Segment Resting Phase; Highlighting patterns (blue)



RNG 42: Coherent Breathing Session (10 d); Segment Meditation; Highlighting patterns (blue) and significant deviations (red)



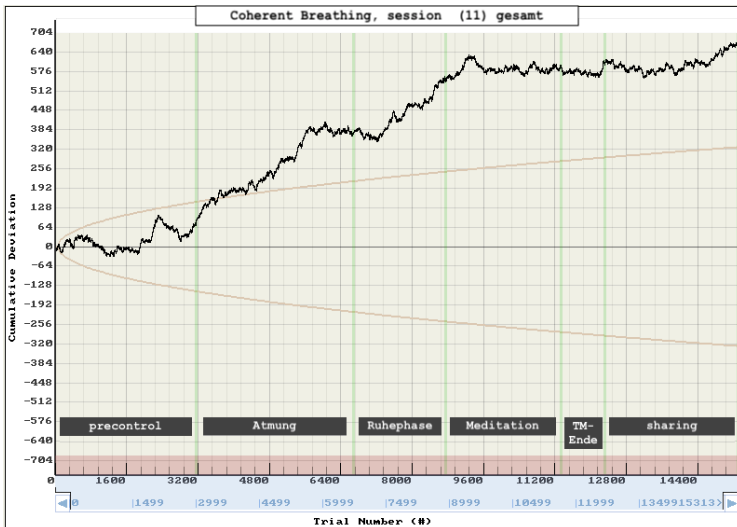
RNG 43: Coherent Breathing Session (10 e); Segment “Healing the earth”; High-lighting patterns (blue) and significant deviations (red)



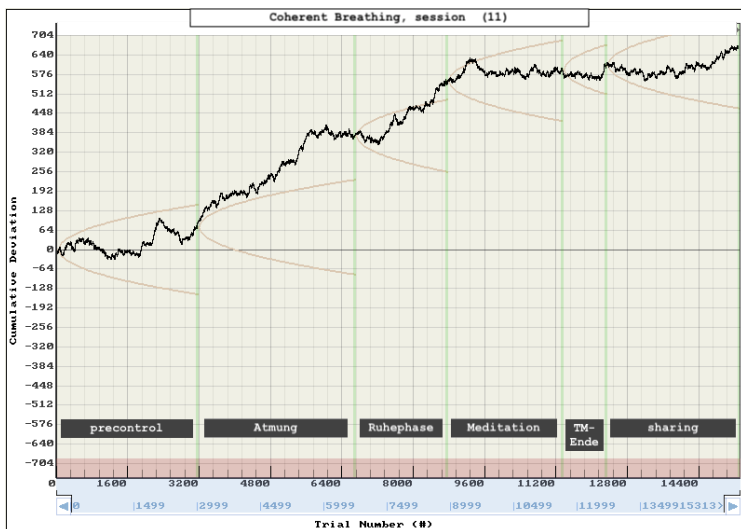
RNG 44: Coherent Breathing Session (10 f); Segment soundcluster (cluster medicine); Highlighting patterns (blue) and significant deviations (red)



RNG 45: Coherent Breathing Session (10 g); Segment Sharing; Highlighting significant deviations (red)



RNG 46: Coherent Breathing Session (11), entire

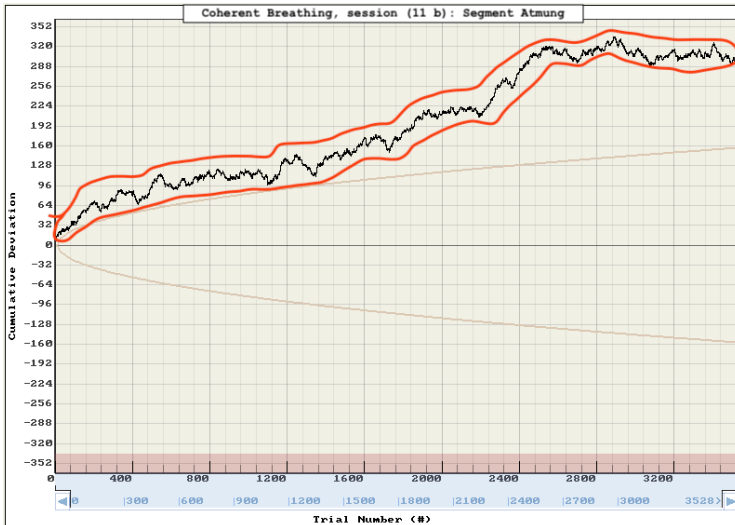


RNG 47: Coherent Breathing Session (11), entire with single segments.



RNG 48: Coherent Breathing Session (11 a), entire; Highlighting patterns (blue) and significant deviations (red)





RNG 49: Coherent Breathing Session (11 b), Segment Breathing; Highlighting patterns (blue) and significant deviations (red)



RNG 50: Coherent Breathing Session (11 c), Segment Resting Phase; Highlighting patterns (blue) and significant deviations (red)

In the following examples we divide breathing and its data into two halves of 30 minutes each. In the first thirty minutes – Phase I - we recommended the *intensive connected breathing of Rebirthing (holotropic breathing)*.

Phase II:

Vijnana Bhairava Tantra (verse 25):

“... focussing one’s awareness on the two voids (at the end) of the internal and the external breath....”

We recommended, to hold the breath after inhalation and exhalation as long as it was possible *without effort*. The subjects were then asked to focus their awareness on the two "still points", the resting and turning points (“voids”) between inhalation and exhalation.



RNG 51: Coherent Breathing Session (12): entire with segments

Precontrol – emotional statements Pbd 1 und Pbd 2 – Breathing Phase I: holotropic breathwork / Rebirthing – Breathing Phase II: breathing with hold – resting phase – Meditation.



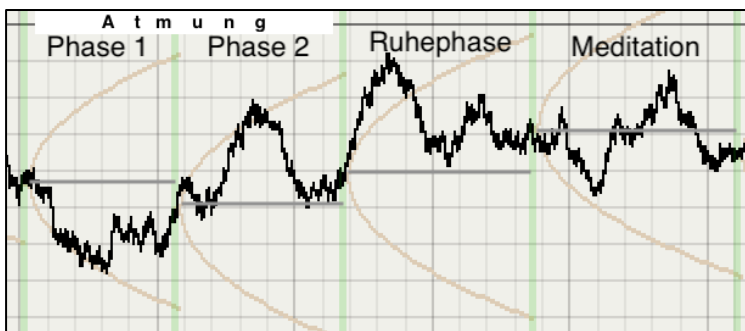
RNG 52: Coherent Breathing Session (12 a); Breathing phase I- Rebirthing / holotropic breathwork; Highlighting patterns (blue)



RNG 53: Coherent Breathing Session (12 b); Breathing phase II - Breath hold after inhaling and exhaling; patterns (blue) and significant deviations (red)



RNG 54: Coherent Breathing Session (12 c): Segment Resting Phase. Highlighting significant deviations (red)



RNG 55: Coherent Breathing Session (12 d): Enlarged section from (12) :

Phase I, holotropes breathwork/Rebirthg. - Phase II Breath hold after inhaling and exhaling – resting phase - Meditation; *grey lines: expected values per segment*



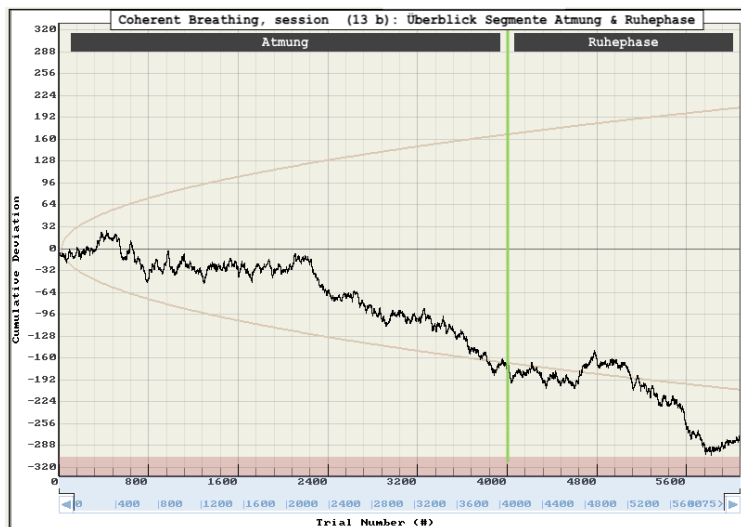
RNG 57: Coherent Breathing Session (12 e); Highlighting patterns (blue) and significant deviations (red) in section (12 d)



RNG 58: Coherent Breathing Session (13): entire, with segments



RNG 59: Coherent Breathing Session (13 a): Entire, Highlighting patterns (blue) and significant deviations (red)



RNG 60: Coherent Breathing Session (13 b): Segments Breathing and Resting



RNG 61: Coherent Breathing Session (13 c): Segments Breathing and Resting, Highlighting patterns (blue) and significant deviations (red)



RNG 62: Coherent Breathing Session (13 d): Segment Meditation, Highlighting patterns (blue)



RNG 63: Coherent Breathing Session (13 e): Sharing – this is finally random-typical – a random line "as it should be ..." 😊



RNG 64: Coherent Breathing Session (14): entire, without single Segments





RNG 65: Coherent Breathing Session (14 a): entire, patterns and significances



RNG 66: Coherent Breathing, Session (14 b): entire, with segments



RNG 67: Coherent Breathing, Session (14 c): entire, with segments; Patterns (blue) and significances (red)



RNG 68: Coherent Breathing, Session (14 d): Segment Resting Phase



RNG 69: Coherent Breathing, Session (14 e): Segment Resting Phase, Highlighting patterns (blue) and significant deviations (red)



RNG 70: Coherent Breathing Session (14 f), Segment Meditation



RNG 71: Coherent Breathing, Session (14 g), Segment sharing



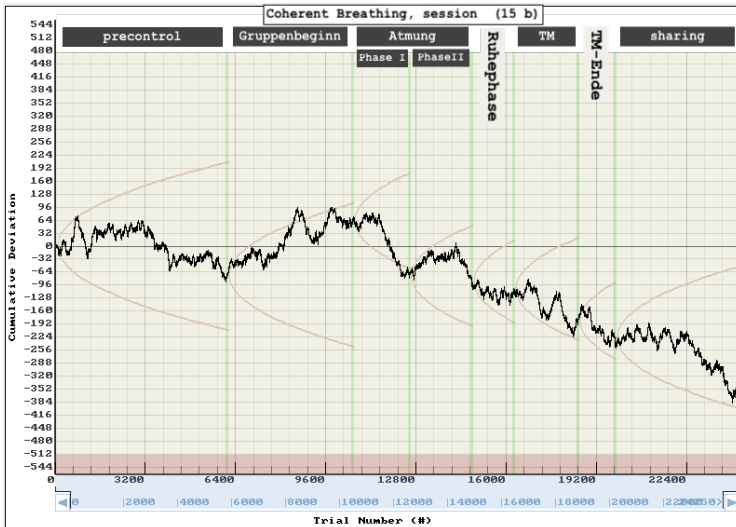
RNG 72: Coherent Breathing, Session (14 h), Segment sharing; patterns and significances



RNG 73: Coherent Breathing Session (15): entire



RNG 74: Coherent Breathing Session (15 a): Entire, Highlighting patterns



RNG 75: Coherent Breathing Session (15 b): Entire with single segments



RNG 76: Coherent Breathing Session (15 c): Segment "group starting", Patterns (blue) and significances (red)



RNG 77: Coherent Breathing Session (15 d): Segment Breathing Phase I; Patterns (blue) and significances (red)



RNG 78: Coherent Breathing Session (15 e): Segment Breathing Phase II



RNG 79: Coherent Breathing Session (15 f): Segment Breathing Phase II; patterns (blue)



RNG 80: Coherent Breathing Session (15 g): Segment Resting Phase: "Typical random"

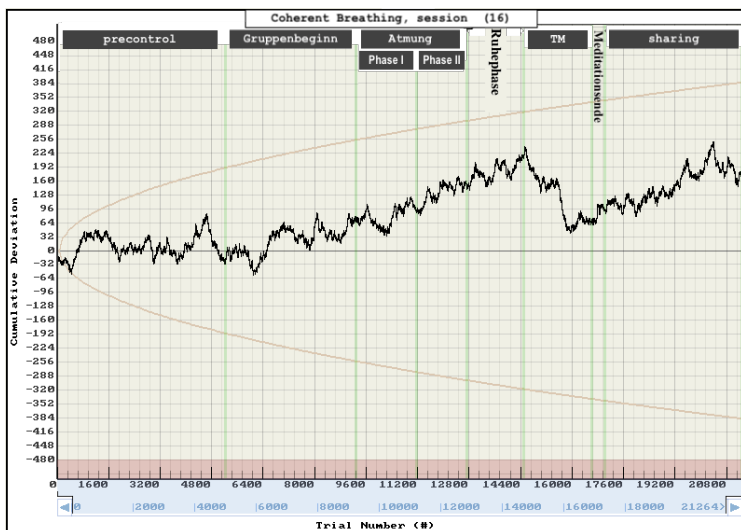




RNG 81: Coherent Breathing Session (15 h): Segment Meditation



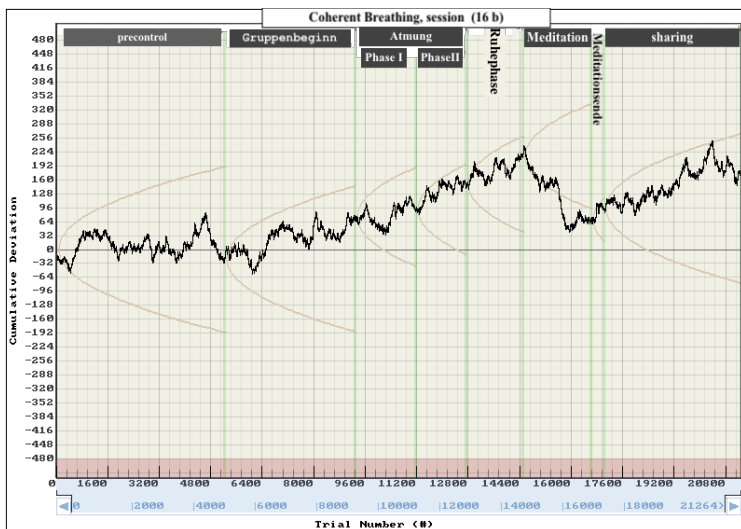
RNG 82: Coherent Breathing Session (15 i): Segment Meditation, patterns (blue)



RNG 83: Coherent Breathing Session (16): entire, ohne Segments



RNG 84: Coherent Breathing Session (16 a): entire, Patterns



RNG 85: Coherent Breathing Session (16 b): entire, with segments



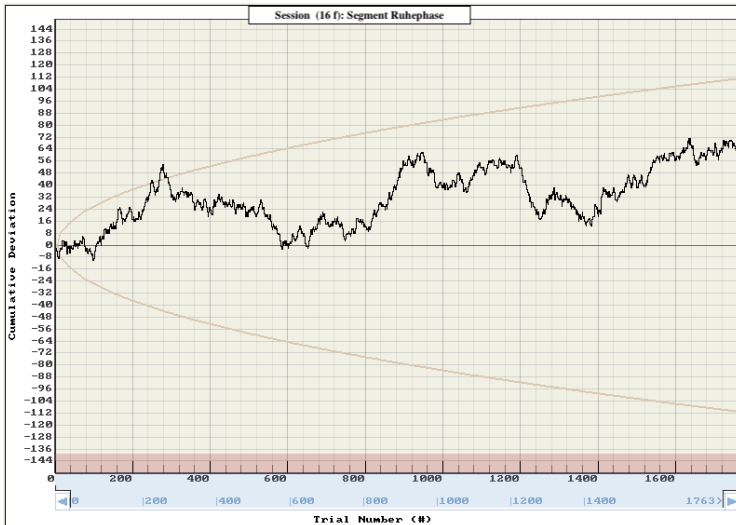
RNG 86: Coherent Breathing Session (16 c ): entire with segments; Patterns, Significances



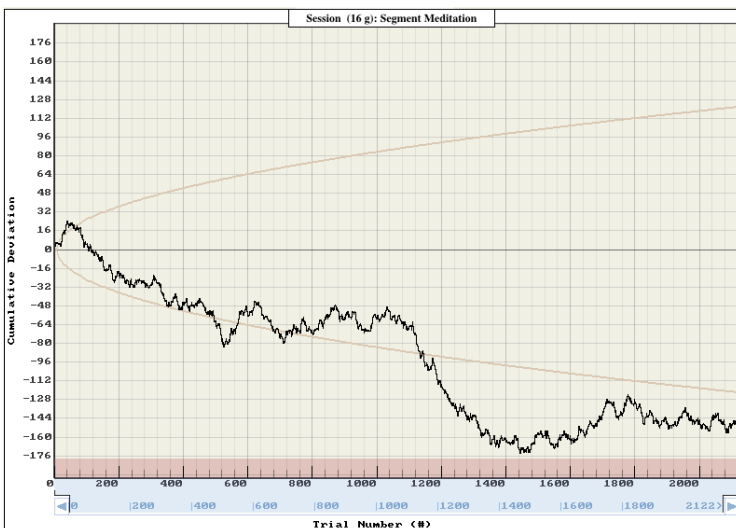
RNG 87: Coherent Breathing Session (16 d): Segment Breathing, Phase I



RNG 88: Coherent Breathing Session (16 e): Segment Breathing, Phase II



RNG 89: Coherent Breathing Session (16 f): Segment Resting Phase



RNG 90: Coherent Breathing Session (16 g): Segment TM-Meditation



RNG 91: Coherent Breathing Session (16 h): Segment TM-Meditation: Patterns (blue), Significances (rot)



RNG 92: Coherent Breathing Session (16 i): Segment sharing



RNG 93: Coherent Breathing Session (17): entire



RNG 94: Coherent Breathing Session (17 a): entire, Patterns und Significances



RNG 95: Coherent Breathing Session (17 b): Segment Meditation (TM)



RNG 96: Coherent Breathing Session (17 c): Segment Meditation (TM), Patterns and Significances

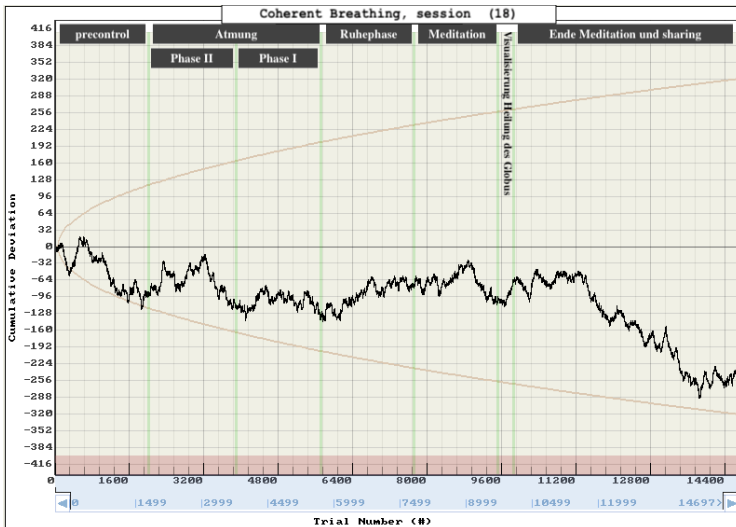




RNG 97: Coherent Breathing Session (17 d): Segment sharing



RNG 98: Coherent Breathing Session (17 e): Segment sharing, Patterns and Significances



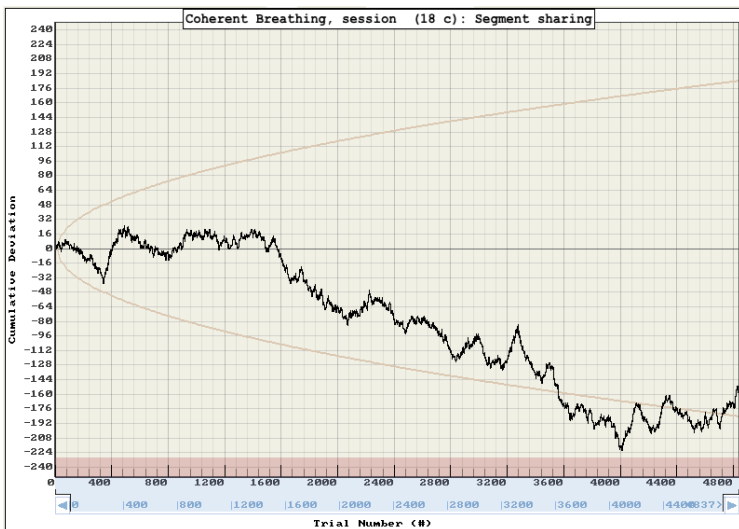
RNG 99: Coherent Breathing Session (18): entire



RNG 100: Coherent Breathing Session (18 a): Visualisation “healing the globe”



RNG 101: Coherent Breathing Session (18 b): Visualisation “healing the globe”, Patterns



RNG 102: Coherent Breathing Session (18 c): Segment sharing



RNG 103: Coherent Breathing Session (18 d): Segment sharing; Patterns (blue) and significances (red)

## Combined sessions of Coherent Breathing and supra-regional coherence meditation.



RNG 104: Combined session(19 / 4): Coherent Breathing (19) (5 pp.) / „Coherence-Meditation“ (4) (11 pp.), entire



RNG 105: Combined session(19/4 a): Coherent Breathing / „Coherence Meditation“, entire with single segments



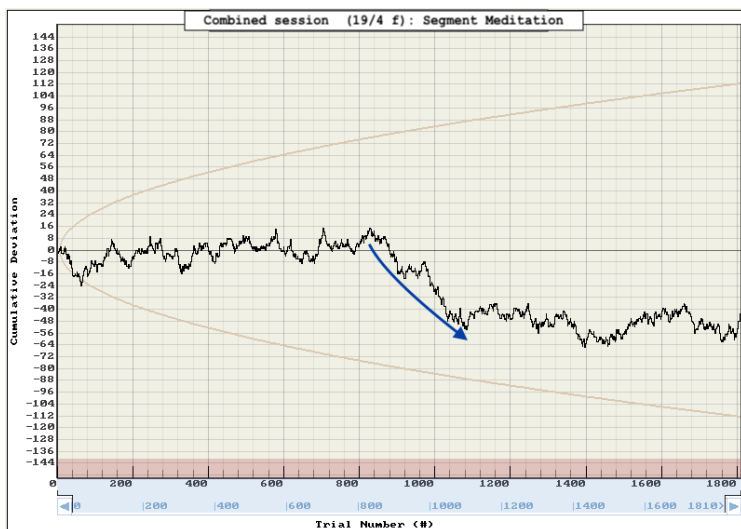


RNG 108: Combined session(19/4 d): Coherent Breathing härenz-Meditation“;  
Segment Breathing Phase II; no Significances, No noticeable patterns.

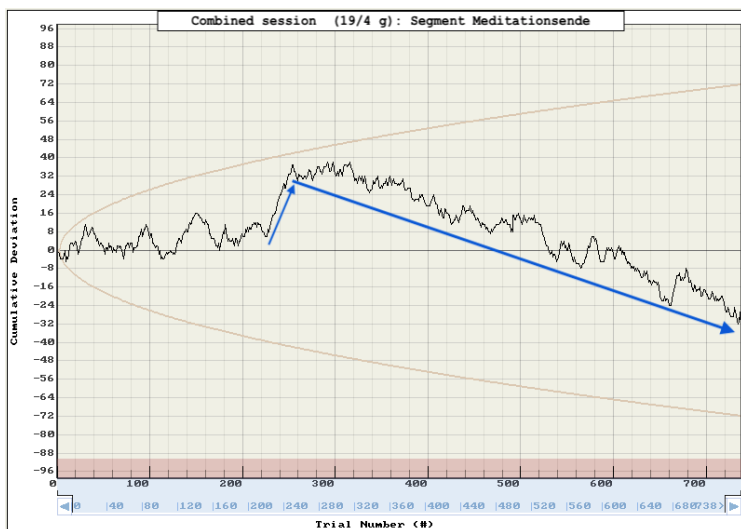


RNG 109: Combined session(19/4 e): Coherent Breathing / „Coherence Meditation“; Segment Resting Phase of the local Pp. in the *Coherent Breathing / pre-control* for supra-local pp. in *coherence meditation*; 5 local participants, further 10 supra-local participants (up to 800 km away). A certain tension in anticipation and preparation of the following joint meditation experiment with distant and mainly unknown participants; patterns and significances clearly present.

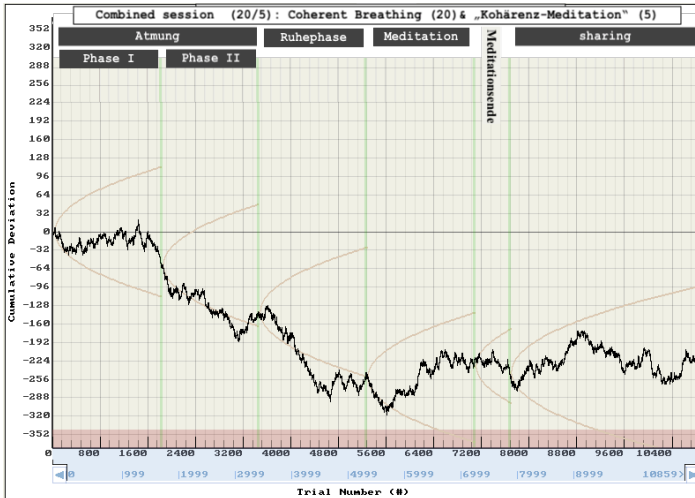




RNG 110: Combined session(19/4 f): Coherent Breathing / „Coherence Meditation“; Segment Meditation; Patterns. Typical drop of the curve during meditation. No significant deviation.



RNG 111: Combined session(19/4 g): Coherent Breathing / „Coherence Meditation“, Segment Meditation end (lokal, ca. 12 Minuten). Some non-local pps reported spontaneously longer - because deeper - meditations; Patterns



RNG 112: Combined session(20/5): Coherent Breathing (20) (3 Pp.) / „Coherence Meditation“ (5) (12 Pp.), entire, with single segments



RNG 113: Combined session(20/5 a): Coherent Breathing / „Coherence Meditation“, entire, with single segments, Patterns, Significances



RNG 114: Kombinierte Session (20/5 b): Coherent Breathing / “Coherence Meditation”, Segment Breathing, Phase I: Patterns



RNG 115: Combined session(20/5 c): Coherent Breathing / „Coherence Meditation“, Segment Breathing, Phase II: Patterns, Significances



RNG 116: Combined session(20/5 d): Coherent Breathing / „Coherence Meditation“; Segment Resting Phase (local), *precontrol* for supra-local pps at the coherence meditation; striking patterns and significances.



RNG 117: Combined session(20/5 e): Coherent Breathing / „Coherence Meditation“, Segment Meditation; Patterns, Significances



RNG 118: Combined session(21/7): Coherent Breathing (21) (3 pps.) / „Coherence Meditation“ (7) (5 pps): Entire;



RNG 119: Kombinierte Session (21/7 a): Coherent Breathing (21)/ „Coherence Meditation“ (7), entire with single segments



RNG 120: Combined session(21/7 b): Coherent Breathing / „Coherence Meditation“, entire with segments; Patterns, Significances



RNG 121: Combined session(21/7 c): Coherent Breathing / “Coherence Meditation”, Segment Breathing Phase I



RNG 122: Combined session(21/7 d): Coherent Breathing / „Coherence Meditation“, Segment Breathing Phase II





RNG 123: Combined session(21/7 e): Coherent Breathing / „Coherence Meditation“, Segment Resting Phase (local) = *precontrol* for supra-local pps at the coherence meditation; patterns and significances



RNG 124: Combined session(21/7 f): Coherent Breathing / „Coherence Meditation“, Segment Meditation. Patterns und Significances



RNG 125: Combined session(26 / 8): Coherent Breathing (26) (5 Tn), „Coherence Meditation“ (8) (2 pps): Entire

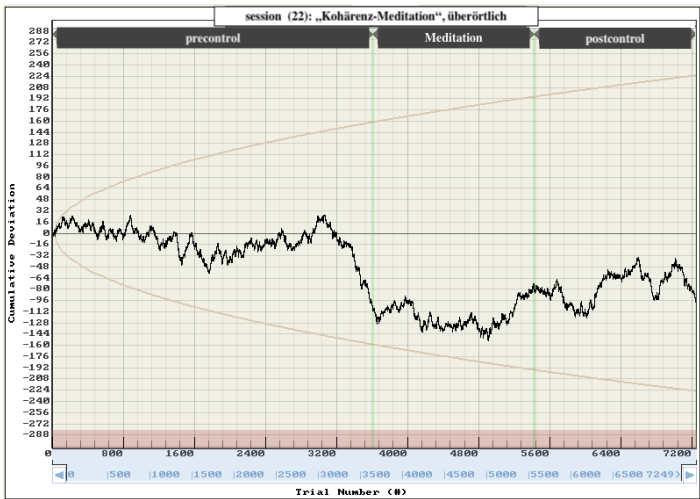


RNG 126: Combined session(26/8 a): Coherent Breathing (26), „Coherence Meditation“ (8): Entire, with segments

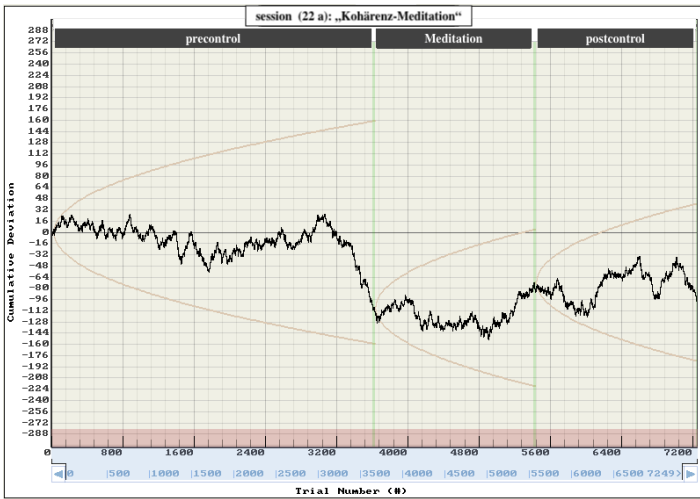


RNG 127: Combined session(26/8 b): Coherent Breathing (26), „Coherence Meditation“ (8): Segment Meditation

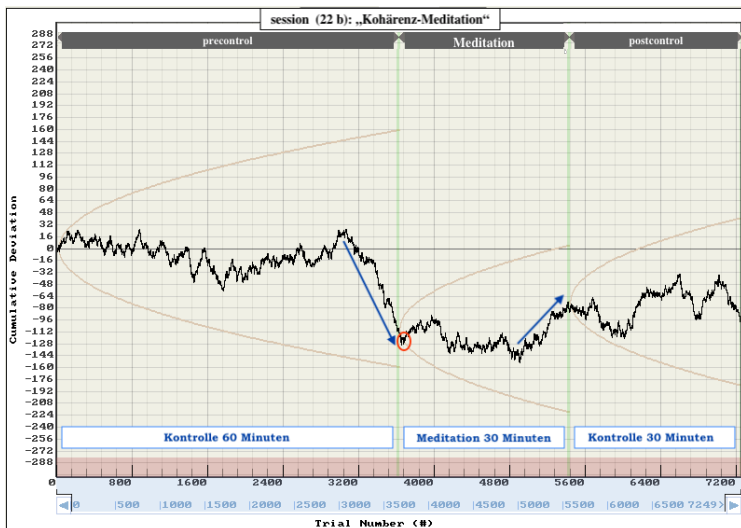
*Joint supra-local coherence meditation*



RNG 128: Session (22): „Coherence Meditation“ (1) (supra-local, about 10 pps): entire with segments precontrol-meditation-postcontrol



RNG 129: Session (22 a): „Coherence Meditation“ (1) (supra-local): entire, with segments



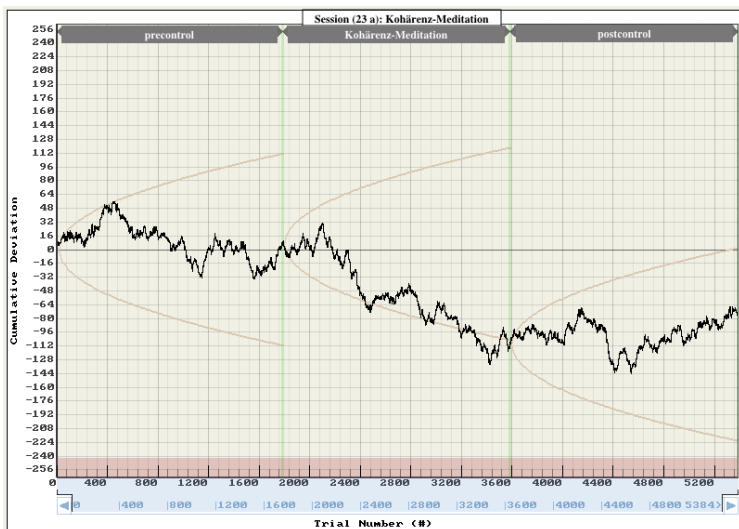
RNG 130: Session (22 b): „Coherence Meditation“ (1) (supra-local): entire, with segments; Patterns und Significances



RNG 131: Session (22 c): „Coherence Meditation“ (1) (supra-local): Segment Meditation



RNG 132: Session (23): „Coherence Meditation“ (2) (supra-local, ca. 25 pps): entire



RNG 133: Session (23 a): „Coherence Meditation“ (2) (supra-local): entire, with segments



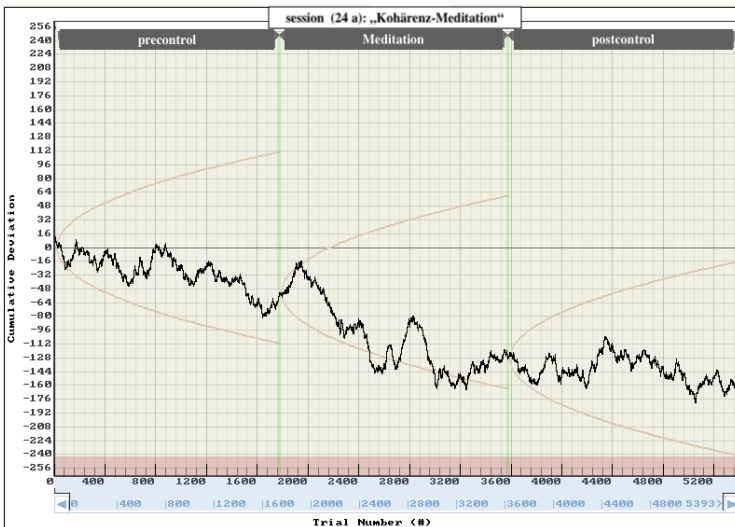
RNG 134: Session (23 b): „Coherence Meditation“ (2) (supra-local): entire with segments precontrol-meditation-postcontrol; Patterns, Significances



RNG 135: Session (23 c): „Coherence Meditation“ (2) (supra-local): Segment Meditation; Patterns und Significances



RNG 136: Session (24): „Coherence Meditation“ (3) (supra-local, ca. 16 pps): Entire



RNG 137: Session (24 a): „Coherence Meditation“ (3) (supra-local): Entire, with segments Precontrol-Meditation-postcontrol





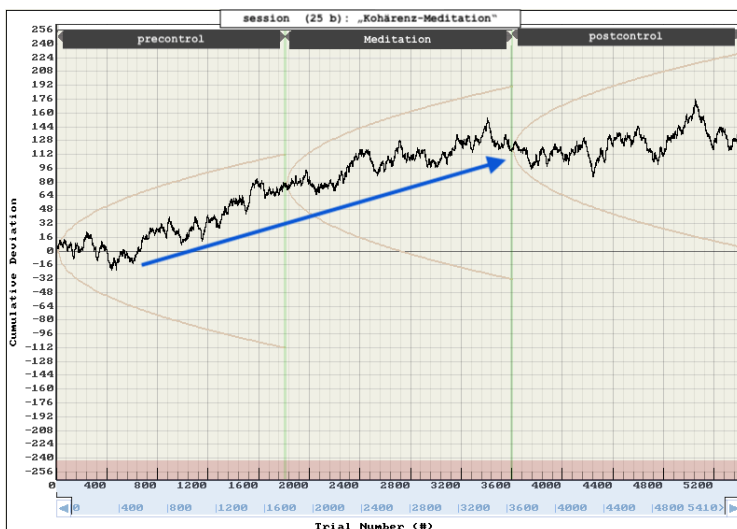
RNG 138: Session (24 b): „Coherence Meditation“ (3) (supra-local): Entire, with segments precontrol-Meditation-postcontrol; patterns und Significances



RNG 139: Session (25): „Coherence Meditation“ (6) (supra-local, ca. 7 pps.): Entire with segments precontrol-Meditation-postcontrol



RNG 140: Session (25 a): „Coherence Meditation“ (6) (supra-local): entire, with segments precontrol-Meditation-postcontrol.



RNG 141: Session (25 b): „Coherence Meditation“ (6) (supra-local): entire, with segments precontrol-Meditation-postcontrol; Patterns (blue)

### ***RNG as a mirror of group dynamic processes***

For the following session, we have a more or less differentiated documentation available, as we took parallel notes during the group session.

For understandable reasons, we do not provide any details here, but limit ourselves to a description of the group dynamics in the group.

The precontrol section is dominated by lively initial conversations between participants who have known each other for years.

The actual beginning is marked by pp 1, where a lively and animated situation arises during the transition to the second Pbd, which is reflected in the RNG. The second Pbd enters emotionally engaged, first reporting domestic depressive crashes and sleeping disorders (marked in red), then panic and overload at work and problems with colleagues, which is indicated by a renewed increase in the second half of the measurement (not significant).

The third pp focuses on relationship problems in addition to less important issues, which leads to a significant rise in the curve with an overshoot of the significance threshold. In the second half, the intensity of the emotions subsides again.

The fourth pp has nothing special to report in this meeting and his contribution lasts only a few minutes.

The fifth participant talks about major relationship problems, but this is hardly reflected in the RNG.



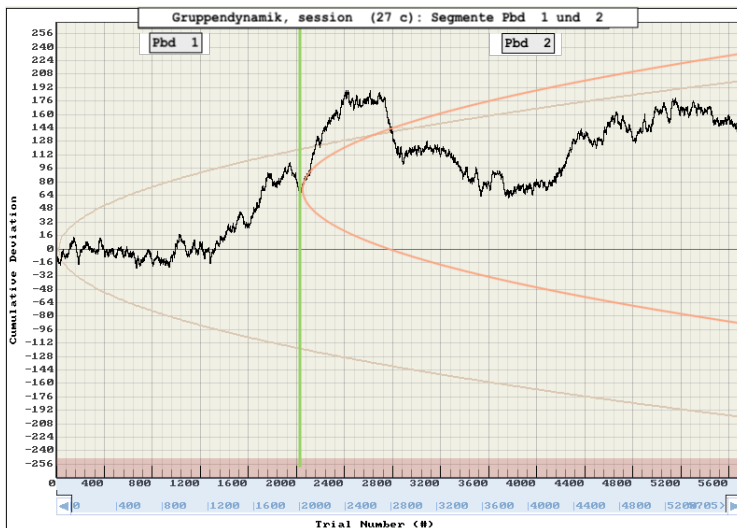
RNG 142: Group dynamic session (27) (5 Tn), entire



RNG 143: Group dynamic session (27 a), entire, with single segments



RNG 144: Group dynamic session (27 b), entire, with single segments; Patterns und Significances



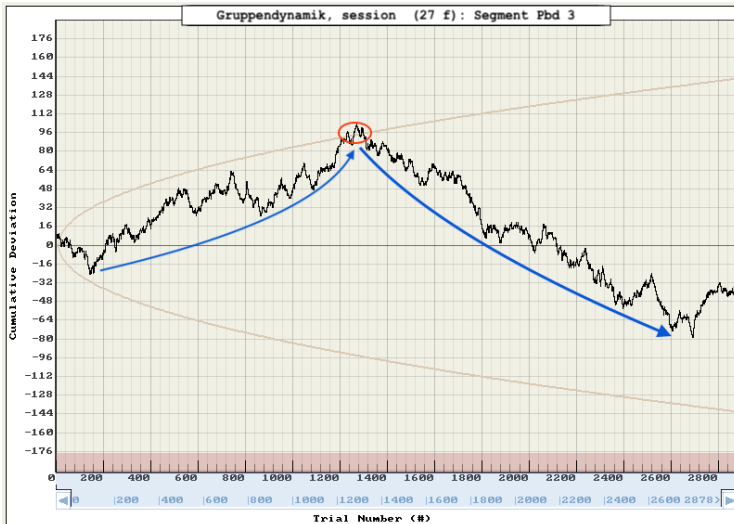
RNG 145: Group dynamic session (27 c), Segments Pbd 1 und 2



RNG 146: Group dynamic session (27 d), Segments pps 2 und 3; Patterns, Significances



RNG 147: Group dynamic session (27 e), Segment pp 3



RNG 148: Group dynamic session (27 f), Segment pp 3; Patterns (blue), Significances (red)

In the following group dynamics session, we refrained from generating a single segment for each participant. We first look at the dynamics of the entire group during the session, which lasted 4 hours and 44 minutes, and then focus on the segments of individual participants.



RNG 149: Group dynamics, session (28), (6 pps); entire;



RNG 150: Group dynamics, session (28 a), entire; Patterns (blue) und significances (red)





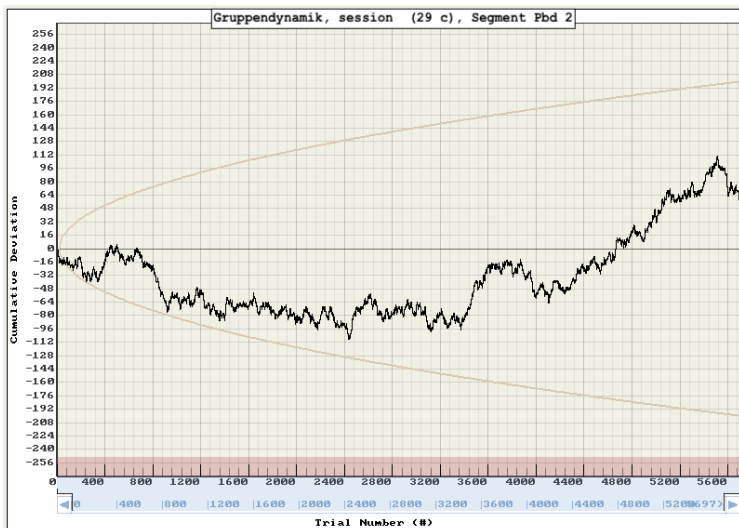
RNG 151: Group dynamics, session (29) (6 pps), entire



RNG 152: Group dynamics, session (29 a), entire with single segments



RNG 153: Group dynamics, session (29 b), entire, Highlighting patterns (blue) and significant deviations (red)



RNG 154: Group dynamics, session (29 c), Segment pp 2



RNG 155: Group dynamics, session (29 d): Segment pp 3



RNG 156: Group dynamics, session (29 e): Segment pp 3, Significances



RNG 157: Group dynamics, session (29 f): Segment pp 4



RNG 158: Group dynamics, session (29 g): Segments pps 5 and 6



RNG 159: Group dynamics, session (29 h): Segments pps 5 and 6, Significances



RNG 160: Group dynamics, session (30) (5 Tn), entire, *long precontrol phase*



RNG 161: Group dynamics, session (30 a), with segments



RNG 162: Group dynamics, session (30 b), with segments; patterns and significances



RNG 163: Group dynamics, session (30 c), Segment pp 2; Patterns and Significances



RNG 164: Group dynamics, session (30 d), Segment pp 3; Patterns und Significances



RNG 165: Group dynamics, session (30 e), Segment pp 4; Patterns and Significances



RNG 166: Group dynamics, session (30 f), Segment pp 5;



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