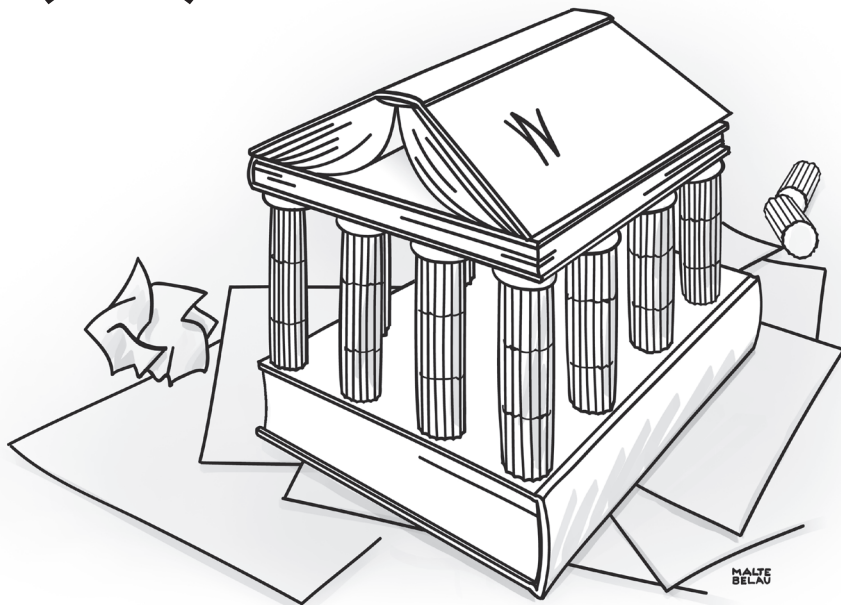# Classics of Organisational Research (29)

David Bohm

In Search of Meaning in Organisations using a Dialogical Mindset

The quantum physicist David Bohm has not only done ground-breaking research in physics, but has also applied his findings to social life as a whole. He was particularly interested in how exploration of all of the individual, social, and cosmic dimensions of life could lead to a transformation of society, but less concerned with organisations and the economy. This latter aspect was pursued by people who worked with him, including Peter Garrett and William Isaacs (Macy 2018). Since his findings represent little considered basics of organisational research and development, the most important ones will be presented here.

Fragmentation

The starting point for Bohm's reflections on the state of the world was his finding of fragmentation. He noted that we perceive the world predominantly in fragments, without discerning their connections. How did this perception come about? Already at school we learn to look at the world through certain glasses, usually without being taught the inner connections between the subjects. We look through the glasses of history, physics, religion and art, etc. We continue this «socialisation»

– others call that qualification - in vocational training and studies. We become historians, physicists, theologians, carpenters, etc. With this increasingly specialised view we then look around in our organisations. For example, we look at economic events through our glasses, each certified with a Bachelor's or Master's degree, and have the controller's eye, the sales glasses or play the role of human resources manager. As a result, we often do not take a holistic view of the company or the market in all its facets, but rather limit our perception and attitude to the perspective of our professional qualifications. We don't even notice this limited point of view anymore. Fragmentation has become a part of ourselves in such a way that we take it for granted and do not consider it as learned.

One could now systematically benefit from these specialised perspectives in meetings, for example, by putting them together and relating them to each other. But the reality is different. Production, for example, accuses the sales department of promising customers too many special requests that cannot be produced efficiently. Sales accuses production of not knowing the market and not knowing how to beat the competition. Instead of bringing each other's perspectives closer through a conversation, a joint customer visit or a joint cost analysis of special requests in a specialised production facility, people

reproach each other for their limited perspective. And most of the time the participants are not even aware of what caused these different judgements.

Bohm's goal was to explore the causes of fragmentation in individual and collective thinking. His main findings are presented here.

First, he describes fragments as those elements of a system that are no longer related to the whole, as opposed to parts that are by definition part of a whole, e.g. individual parts of a watch. Bohm illustrates what he means by fragmentation using the example of a watch that is shattered and disintegrated into many pieces. Before, the individual parts were related to each other and together formed a functioning watch. After the shattering this relationship is destroyed and the individual pieces have no more function due to the missing relationship to the watch, are no longer part of a whole but fragments (Bohm 1996, p. viii). He tries to show us this fragmentation of the world as a whole in perception and thought, without recognising the inner context of the pieces, when he talks about the problem of fragmentation.

Furthermore, it is known from physics that there is a correlation between observer (subject) and observed (object). For example, the answer to the question of whether light consists of waves or particles depends on what you are looking for. In this respect, the observer influences what he can observe. Bohm therefore speaks of a «unity of thought and reality» and regards reality not as static, but as a dynamic, constantly changing process (Bohm 1996, p. 69ff). Here, too, the insight is to always be aware of the inner relationship between the observer and the observed.

Thinking and Perception

Bohm regards thinking itself as the processing of perception in a more differentiated way. He distinguishes «thinking» as an ongoing process of perception and processing of reality and «thought» as the result of earlier thinking and collective memories and assumptions (Bohm 1980).

Thinking uses language as a medium. Different languages produce different thinking. We use language to describe our perception and make it available to the mind. In his research on language, Bohm emphasised that the world does not have a fixed shape at a given time, but is in constant flux. When talking about the world, however, we use nouns that convey the impression of something «coagulated», something that we can call an independent, unchangeable object. According to Bohm, this view can no longer be regarded as valid. We have to imagine situations rather as events that would have to be described with verbs. If we look at our hand, for example, it is not an unchangeable object, but more precisely a sequence of cell divisions that are related to each other and obey a given order that we finally call a hand (Garrett).

Bohm recommends shifting our perception away from the static object to the dynamic process. This was also the aim of his proposal for the language experiment Rheomodus, rheo (gr.) = flow. He dedicated a whole chapter to this in his book «Wholeness and the Implicate Order» (Bohm 1980, p. 84ff). However, his ideas have not been accepted.

Consciousness as a subjective relationship to the world

We have already discussed that language is the medium of thinking and that thinking shapes consciousness. Bohm and also Max Weber stated: «Our thinking and consciousness determine our being». Scientifically, we distinguish different types of consciousness. Together with Krishnamurti, Bohm understands consciousness as our subjective, internal relationship to the world as a whole. It consists of inner images such as experiences, memories, traditions, (limited) knowledge, longings, beliefs, rituals, feelings, etc.. (Krishnamurti 1983). In the course of our lives, we have been taught these as abstractions from reality or developed them ourselves in order to remain capable of making decisions and taking action despite the complexity of the world. Then we do not have to think fully about the world in every situation. We have combined these individual elements of consciousness into worldviews and assumptions (Senge speaks of mental models, Buber of the world of orientation), as our personal image of the world, which we consider to be the real world without being constantly aware of it. Our perception, in turn, is influenced by these inner images or assumptions, which are thus more memory of what was previously stored collectively than actual perception in the here and now.

Since the development of these inner images depends on the social environments in which they occur, our subjective image of the world is strongly influenced by our environment. In this respect we are much more part of a collective consciousness or an invisible field than we want to admit. We are an integral and interdependent part of this world and not just a subject that considers the world outside of itself as an object. That is why the collective consciousness unfolds between people, but is not measurable explicitly, but only implicitly tangible. In moments of close encounter people can sense this collective consciousness. But so far science has not found a way to make this feeling more explicit. Bohm considers this paradigm shift, viewing and thinking the world in its contexts and in the dynamic process of becoming rather than in the statics of individual objects, to be fundamental to understanding many of our problems.

Consciousness can also help us to uncover inconsistencies or incoherencies. Like with the remark: «Something is wrong here», which means something like: Things are not consistent or are incoherent. This finding is often based on a mixture of rational considerations, a gut feeling and other physical reac-

tions. Our body as a whole and not just a part gives us such signals. We can perceive this if we have not forgotten to listen to our body.

It is Bohm's concern that we become open to the discovery of such connections in dialogue, for example, and consequently participate in the dialogue with greater respect and appreciation for other perspectives, positions and experiences. The practices and principles that are helpful for this are explained in more detail in the chapter on Dialogical Mindset.

World view and wholeness

The explanations on consciousness have already explained to what extent our own view of the world influences our perception of the world. In this respect, Bohm wanted to replace the currently dominant Cartesian world view of duality, in which all parts are always considered separately from one another, with another (Bohm 1980). This other, holistic world view, also called «holistic ontology», he developed in the 1940s and 1950s. It can be described by the characteristics of wholeness, processual quality and non-divisibility and fundamentally changes our perception as well as the way research questions are formulated. It is not primarily asked how the world can be divided into different sub-areas, but rather what the connecting elements are. The search for what is common rather than what separates us is on again. Thus we humans perceive the world more as a whole, and science is also in a position to gain more far-reaching insights than with the old world view.

How did Bohm come up with the idea of a new world view? He tried to solve one of the greatest problems of physics, the reconciliation of General Theory of Relativity and Quantum Mechanics. The incompatibility was due to the fundamentally different assumptions that make both theories a reality. Albert Einstein's Theory of Relativity understands reality as continuous, causal and local. This means that events occur in a definable sequence of cause and effect and not in leaps and bounds (continuously). They are causal, and an object can only be in one place (local) at a time. Quantum Mechanics, on the other hand, regards reality as discontinuous, not causal and not local. Thus both theories fundamentally contradict each other with their assumptions. Only the assumption of wholeness applies equally to both theories. It can be considered as the connecting element.

In order to combine the two contradictory theories, Bohm had to move to another level of abstraction, where he found the «wholeness» as an assumption valid for both theories. This approach also shows that it depends on the question (search for the unifying) and the relationship between the observer and the observed (researcher and two contradictory theories).

However, according to Bohm, this wholeness as such is not completely attainable. But you can go for it. It depends on the mindset and attitude with which we live our lives. Through our mindset we create the reality of the world, which results from the way we look at it.

Unlike many other researchers, Bohm does not assume that there is great chaos in wholeness, but rather assumes that it is subject to a certain order. In his already mentioned book «Wholeness and the Implicate Order» he describes findings from his experiments in plasma physics.

Explicit and implicit order

Bohm basically assumes that there is an order in all phenomena that physics deals with. However, this is not always visible or measurable, which should not lead to the conclusion that it does not exist. By combining his physical research with the insights from the dialogues with Krishnamurti he distinguishes between two types of order, the explicit order and the implicit order. The former «unfolds» and becomes materially visible. The implicit order is «enfolded» and only (spiritually) effective, but not visible (Bohm 1980). This can be illustrated in a simplified way on the seed of a tree. The full-grown tree is already implicitly enfolded. After many years of growth, the tree develops into a material form that we can perceive with our senses.

Bohm comes to the conclusion that matter and spirit have the same basic structure and are ultimately two sides of the same coin (Davies & Brown 1994, Der Geist im Atom). Descartes had denied precisely this unity and consciously distinguished between matter as an extended thing (res extensa) and spirit as a thinking thing (res cogitans). Bohm proposed his counter-proposal against this Cartesian world view, which continues to dominate our thinking in science and business.

The Bohmian idea of an implicit order can be applied to corporate culture. This is expressed in strong, shared values and principles, which are initially shaped by the founders of an organization. In the course of the company's development, employees gain an increasing influence on the corporate culture. If it is made possible to rediscover the culture in the workforce again and again and not to prescribe it by the management of the organisation, one can speak of the culture as a kind of implicit order of the organisation that could take on an implicit steering function as the spirit of the company.

Dialogical mindset

In 1961, Bohm's wife Sarah gave her husband the book «The First and Last Freedom» by Jiddu Krishnamurti. She had noticed that Krishnamurti deals with questions similar to her husband's, such as the phenomenon of the observer and the observed. After reading the book, they both attended a lecture by Krishnamurti, who also lived in London at the time. From that time and for many years, the Eastern wisdom scholar Krishnamurti and the Western quantum physicist Bohm met for open and

deep discussions and conducted intensive dialogues on fundamental topics. Bohm later expanded the idea of a deep dialogue from two people to a larger number of participants (Bohm 1985). The term dialogue should be understood literally. «In Greek «dia» means through, and «logos» means word or meaning. Therefore, dialogue is a format in which «meaning can flow through» (Bohm 1996, p. 6). It opens up a space for conversation and encounter that goes far beyond other forms of communication.

It was very unusual for a scientist to engage in conversations with other scholars, especially from the humanities, beyond his own discipline. This shows that Bohm was prepared to question his scientific findings. To this end, he supplemented his scientific approach of explanation and objectivity with the hermeneutic approach of understanding and subjectivity. In this respect, he can be described as a pioneer of action research.

There were fore-runners to Dialogue, such as the conversations amongst indigenous peoples, Socratic Dialogues in Greece and the work of Martin Buber, a Jewish religious philosopher (Ellinor & Gerard 2000). What Bohm was experimenting with was radically different from each of these. He was experimenting with a dynamic enquiry into the mindset that either fragments or generates new meaning. Understanding that, and how the fragmented mindset creates problems, was seen as far more important than trying to fix the endless problems created by fragmentation (Garrett).

Just before the time of the dialogues with Krishnamurti (1960–80s), Patrick de Maré, Bohm's psychotherapist, experimented with different group sizes for a series of conversations (dialogues). In his book Koinonia, Greek for «community through participation», he comes to the conclusion that such a microcultural context is created in groups of 20 to 40 participants, which represents the entire society. This idea corresponds to the assumption that such a group can represent society like a hologram. Bohm finally came to a similar conclusion regarding the appropriate group size for a dialogue after experiments with different group sizes (Bohm et. al. 1991).

The Bohm Dialog is a free-flowing group conversation. This can be described as a multi-faceted process of direct face-to-face encounter. Through dialogue, participants are enabled to reflect (suspend) their assumptions and prejudices and to explore their consciousness (Bohm 1996).

Due to the numerous upheavals in the environments of organisations as well as in society as a whole – keyword: digital transformation - the time seems ripe to examine what is really important to us in a broad-based organisational and social discourse. The dialogue seems a particularly suitable form for this. Through it, the different values of the people involved can be brought to light and deeply rooted, collective assumptions and prejudices can be questioned anew.

Over the years, David Bohm and his students have developed a set of practices and principles that help to turn a conversation into a dialogue. What started in 1984 in Mickelton, UK as a private meeting with David Bohm to learn about his ideas on wholeness and fragmentation was further developed during numerous meetings in different countries. Dialogue became a cornerstone in Peter Senges book «The Fifth Discipline» published in 1990. Ever since many practitioners developed the field and the practice further.

It took until 2017 when the «Academy of Professional Dialogue» was formed to acknowledge those doing good professional dialogue work, to inspire others to do so, to support those wanting to work in this area and to develop the whole field of Professional Dialogue. The academy is an international not for profit organisation, with activities in several countries including UK, US and Germany.

Figure 1 gives an insight into the Dialogic Mindset and shows selected «Dialogic Competencies» in their interdependency (Hartkemeyer 2005; Ellinor & Gerard 2000).

A dialogue needs a space in which the participants can feel safe and do not have to be afraid to do something incorrectly. In most company meetings, however, such spaces are not created. Here, hierarchical thinking, competition and dogmatism prevail. The safe place, which is a prerequisite for a successful dialogue, holds together what is said in it. Therefore one speaks also of a «container» (lat. contenere = to hold together). One way to create a container is a so-called check in. Here each dialogue participant tells briefly what her current situation is like. Thus these situations are not only unspokenly present in the room, but one lets the others know about them. A first step towards understanding and respect for others and building trust.

Principles for a successful dialogue

The most important prerequisite for a successful dialogue is the «mindset» with which one participates. With a curious, learning mindset, one can open oneself up to the other dialogue participants rather than adopting a mindset from the beginning as if one already knew everything. The learning mindset with a beginners mind makes it possible for us to be guided by the following principles in a dialogue:

There are also positions or views in dialogue that one would like to communicate and defend. However, these should be presented constructively. The others should be convinced and taken along and not discussed down. This way of advocating a topic is called «productive advocacy». This can be done both as voicing and as opposing with a counter-argument.

In addition there is the «enquiry». In a certain way, it opens up the space for conversation in a different, more exploratory direction. Here we ask more for examples or concrete experiences, in order to deepen the understanding of the other one rather than to represent an own point of view.

In order to get to the bottom of the numerous assumptions and prejudices of the participants, Bohm suggests «suspending» them. It is a kind of «making available» of assumptions, valuations and feelings. Dialogue is a space in which our assumptions on which thinking is based can be constantly questioned. This enables us to think much more clearly about reality than it would be possible with all our unreflected assumptions. When we describe situations, our judgements are quickly at hand. Suspending encourages us to keep these judgments in suspense for a while and to see if there are other possible interpretations of the situation (helpful methods in this context: ladder of inference, reframing, double loop learning).

Another method that helps with suspension is «proprioception», a physiological knowledge that means as much as self-perception. For example, if you stand in a dark room, you usually know where your legs and arms are without seeing them. This enables self-perception. But there are people whose self-perception is disturbed, who do not have this feeling. Bohm has applied this concept to thinking and recommends practicing, perceiving ourselves in our thinking and making ourselves aware of our own assumptions over and over again (Bohm 1996).

The principle supported by the practices of suspending and proprioception is «proprioceptive awareness». We are becoming increasingly aware of how we think and what assumptions we have about the world.

The next practice for a good dialogue is «radical respect». This applies in particular if we want to take a counter position to others. On the one hand, respect can stem from the appreciation of what has been tried and tested to date and, on the other hand, from respect for the other position. By respecting the different perspectives, we are able to really listen in conversation. The underlying principle, which is made possible by respect, is to establish an inner connection or «enfolding coherence».

If we create coherence between our thinking or consciousness and our actions, there is a greater likelihood that our actions will produce results that we actually want. Collectively we often act in such a way that we produce results and side effects that we do not want. For example, for convenience and hygiene reasons, we buy plastic-packed food and at the same time find that the oceans are contaminated with hundreds of millions of tons of plastic waste. We want the former, we usua-

Figure 1
Dialogical Mindset − Practices and Principles
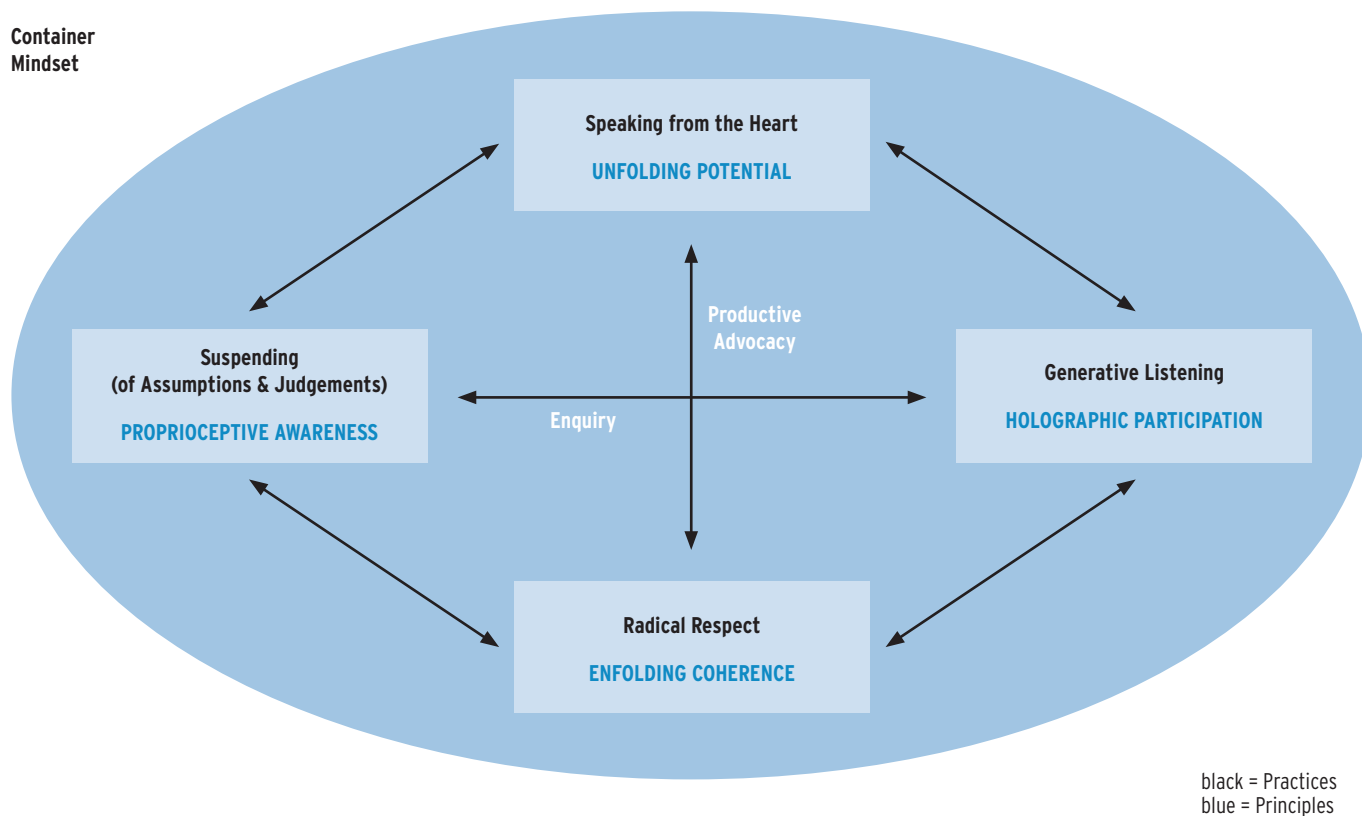
Source: adapted from Isaacs, W. & Garrett, P. (2002) and Hartkemeyer, J. & M. (2005), by Thomas Klug

lly don't want the consequence. However, we are usually not aware of this consequence and therefore act incoherently.

Dialogue is generally understood to be speaking to each other. However, listening is at least as important as speaking. «Listening» could be described as being with the other without judgment in order to come to oneself. This way of listening enables you to get to know a different perspective that would otherwise remain closed to you. The easiest way to listen would be if we were completely unknowing and inexperienced (empty). Then one's own «previous knowledge» would not prevent one from actually hearing. If we have a lot of knowledge and experience, we have to keep that under control so that we do not use the filter of our own knowledge and «prejudices» while listening.

By listening we support the principle of «holographic participation», through which we can integrate our personal experiences with experiences of others and become part of a larger field in which fragmentation finally is eliminated.

«Speaking from the heart» in the sense of genuine, truthful and sincere voicing. We are talking about what is really important to us, and we do not perform a role. But when you're so open, you make yourself vulnerable. It is quite risky to speak truthfully, especially in organisations. Here one can quickly stand as a nest-polluter with honest expressions or as too touchy there, if one speaks also emotionally. When we speak from the heart, we show ourselves as a whole person and not just as function owner. The principle underlying this practice is «unfolding potential». Before we talked about the enfolded implicit order. This can unfold outwardly if there are courageous people who give their «affairs of the heart» a voice (and also speak for others).

Bohm originally demanded that there should be no authority and no hierarchy in dialogue. However, this requirement was not always strictly fulfilled later when it was transferred to organizations (Macy 2018).

Relevance of the Bohmian Dialogue for today's organisational development

Agile Organisations

The Dialogical Mindset is an essential prerequisite for the introduction of agile organisations such as those described by Frederic Laloux in his book (2014) «Reinventing Organizations». He speaks of three crucial characteristics that modern organisations have in common:

Self-Management

It requires acting like an entrepreneur with all the freedom but also responsibility and a high degree of support from the organisation.

If entrepreneurial self-management is to succeed in a larger organisation, values and actions must be constantly synchro-

nised and coordinated. Dialogue is a suitable means of communication for that.

Wholeness

The basic prerequisite for holistic action is the continuous creation and maintenance of a space (container) where people can be themselves and grow into their potential, authentically and without a mask.

In addition, from a holistic perspective, one does not understand one's own organisation absolutely and detached from others, but as part of a comprehensive, worldwide division of labor. In the value chain, this involves direct interaction with all other organisations and indirect interaction with the market.

Meaning, purpose

The «meaning» is a social construct. It must be developed by each person for themselves and in an organisation by their members together. Dialogical organisational development is based on the paradigm that organisations are meaningful entities (Bushe & Marshak 2015). Dialogue is a form of communication that reveals meaning in organisations and «lets meaning flow». This is all the easier when you stop wanting to con-

Biography

David Joseph Bohm was born on 20 December 1917 in Wilkes-Barre, Pennsylvania, USA and died on 27 October 1992 while returning from work in a taxi in London.

Bohm was a quantum physicist and philosopher. He has made numerous major contributions in the field of physics. His focus was on multipart theory and the basics of quantum mechanics. He developed Bohmian mechanics, an alternative interpretation of quantum mechanics. Bohm earned his bachelor's degree in Pennsylvania and from 1939 studied with Robert Oppenheimer at the California Institute of Technology and then at the University of California, Berkeley, where he received his doctorate in 1943. After World War II, Bohm was Assistant Professor at Princeton University. Here he had numerous discussions about physics with Albert Einstein. For a short time at the end of the 1930s he became involved in pacifist and communist student organisations. This repeatedly caused problems for his career in the USA at that time.

After he could no longer find a job in the USA because he refused to testify whether one of his colleagues sympathised with communism, other scientific stations were Sao Paulo, Haifa and Bristol before he became professor at Birkbeck College at London University in 1961. Towards the end of his life he became increasingly concerned with human consciousness and the foundations of interpersonal understanding. He has always maintained this interest since his early youth.

trol everything and instead decide to feel more and «answer» in the sense of: acting together out of res-ponse.

Theory U

Claus Otto Scharmer argues more fundamentally and theoretically in his Theory U (2007) for the introduction of a social grammar for changes in organisations and society. In doing so, he is essentially influenced by Boehm's thoughts on dialogue.

He also emphasises the importance of the different ways of listening and suggests sensing journeys, where participants can suspend their experiences by immersing themselves in previously unknown worlds and milieus. According to Scharmer, more conscious listening and a change of perspective at the sensing journeys lead to more holistic and coherent ideas of organisations and processes that can be used for organisational development.

Organisational development

In addition, Bohm's dialogical mindset has an influence on other areas of organisational development:

- Review of the basic assumptions: Organisations as living organisms, employees as individuals or social beings
- Corporate culture as an expression of shared meaning within the organisation and in an economy based on the division of labour
- Particularly in phases of major change, it is important to make us aware the basic assumptions of our thinking
- Dialogical mindset is a basic condition for learning and learning organisations
- Dialogue as a «second language» in agile organisations

Thus, a dialogical mindset changes both our thinking and our perspective on the world and our organisations. With dialogue we have thinking and action patterns at our disposal with which both questions of meaning and practical changes in organisations can be dealt with. This gives us the chance to use «agile» not only as a buzzword, but to create truly living organisations.

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