Abstract:

1. Aim and topic

It seems that the dialogue between science and religion is mainly a matter of epistemology. What we need is a new language that could infuse the totality of our quest. The mutual interpenetration of scientific and religious discourse is currently on the way, and some significant steps have been taken. For example, the meta-scientific terminology developed by David Bohm seems to contain the germs of such an all-embracing meta-language. In this paper I wish to contribute to the unfolding of its potential by highlighting on some analogies between Bohm’s thinking and different Buddhist presentations on the nature of reality.

2. Name and form: soma-significance

Bohm’s revolutionary notion of “soma-significance” offers a convenient starting-point for our discussion. Bohm introduces the new term to emphasize the unity of the physical and mental aspects of all experience:

The notion of soma-significance implies that soma (or the physical) and its significance (which is mental) are not separate in the sense that soma and psyche are generally considered to be; rather they are two aspects of one overall indivisible reality.

I suggest that Bohm’s concept of soma-significance can be meaningfully compared with the Buddhist concept of “name and form” (nama-rupa).

3. Karma as signa-somatic activity

Bohm distinguishes two aspects of the dynamic relationship between name and form: the soma-significant and signa-somatic relationship. The first refers to the way we interpret our experiences, while the second is related to intentional action. Meaning and intent are thus two sides of a single activity: “Meaning unfolds into intention, and intention into action, which however, has significance, so that there is in general a circular loop of flow.” This is similar to the Buddhist understanding of action or karma, held to be responsible for the evolution of both beings and environments. As Bohm puts it: “both nature and mind as we experience it (…) share a basic over-all process which is an extension of soma-significant and signa-somatic activity.” Karma is a reciprocal relationship between mind and matter: “action toward the rest of the universe is ultimately a result of the totality of what it means to us. But (…) the reaction of the rest of the universe to us is its signa-somatic response according to what we mean to it.”
4. Unfolding Meaning
Bohm describes how meaning is capable of indefinite extension, and this is substantiated through the Buddhist analysis of the mind and material reality. If there were a bottom level of reality, it would be unambiguous, but quantum theory implies that no such bottom level is possible. The ambiguity of meaning is brought into a crucial role in the understanding of the behaviour of both mind and matter.

5. The Meaning of Meaning
Finally, I would like to offer some analogies to Bohm’s thoughts on the implicate and explicate orders, the polarized structures of meaning, the interdependence of content and context and the self-referential nature of mind. In doing this, I am drawing on Buddhist epistemological discourse.

Biography:
Tamas Agocs was born in 1966 in Budapest, Hungary. He is a scholar and teacher of Tibetan Buddhism, a translator and a practitioner. He graduated from the University of Budapest in English literature and oriental linguistics. As a post-graduate student, he also studied at the University of Virginia. He was awarded Ph.D. in 1997 for a linguistic dissertation on the Tibetan editions and commentaries of the Diamond-sutra.

Presently he teaches Tibetan language, Buddhist philosophy and meditation at the Buddhist College in Budapest. He has published two books, several translations and articles. In the past few years he did extensive research in Nepal on the religious lore of the Nyingma school of Tibetan Buddhism. He studied some of the most important treatises on the nature of mind. The technological difficulties involved in translating such texts into English have led him to research in a number of fields such as quantum physics, dynamical psychology, and the modern sciences of consciousness.

In 2004 he founded the East-West Research Institute to coordinate research at the college and initiate programs for the application of Buddhist ethical, epistemological and metaphysical principles in different fields of science and human activity.

Paper Text:

1. Aim and topic

It seems that the dialogue between science and religion is mainly a matter of epistemology. What we need is a new language of immense sophistication that could somehow infuse the totality of our quest. The mutual interpenetration and cross-fertilization of scientific and religious discourse is currently on the way, and some significant steps have already been taken. For example, the meta-scientific terminology developed by David Bohm would seem to contain the germs of such an all-embracing meta-language. In this paper I would like to contribute to the unfoldment of some of its potential by highlighting on some interesting analogies between Bohm’s thinking and different Buddhist presentations on the nature of reality. At this preliminary stage of investigation, my method will be relatively
simple. I will juxtapose different quotations from Bohm’s posthumously published paper *Soma-Significance: A New Notion of the Relationship Between the Physical and the Mental*\(^1\) with my explication of some Buddhist ideas that seem appropriate in the context, and let the dialogue unfold in a natural way.

2. Name and form: soma-significance

Bohm’s revolutionary notion of “soma-significance offers a convenient starting-point for our discussion. Bohm introduces the new term to emphasize the unity of the physical and mental aspects of all experience:

> The notion of soma-significance implies that soma (or the physical) and its significance (which is mental) are not separate in the sense that soma and psyche are generally considered to be; rather they are two aspects of one overall indivisible reality.

I suggest that Bohm’s concept of soma-significance can be meaningfully compared with the Buddhist concept of “name and form” (*nama-rupa*), so that their respective contexts will interpenetrate and mutually enrich each other’s implications. Form (Sanskrit *rupa*), in Buddhism, refers to all phenomena perceived by the five senses – i.e. sights, sounds, odours, flavours and textures – in general, and visible forms in particular. It is obviously analogous with soma. “Name” (*nama*) includes all mental aggregates (*skandhas*), feelings, thoughts, emotions and volitional factors, as well as consciousness itself. “Name” (or “naming”) is thus significance.

Calling the mental aspect of experience “name” reflects the epistemological orientation of Buddhist thought, which assigns to the “naming” or labelling function of the mind a crucial role in the construction of reality. Compounded things – such as trees, chairs, chariots or persons – are not ultimately real, since they cannot withstand analysis. Rather, they are mental imputations based on certain sense impressions, which are unintelligible by themselves. Buddhist epistemology insists that ultimate reality must be non-compounded or undivided, and thus hypothesizes an atom or spatially indivisible particle as the ultimate reality of the physical (similarly to classical science) and a temporally indivisible moment of perception as the ultimate reality of the mental. These indivisible entities, called “specificities” (*svalakshana*), are the ultimate objects of direct perception, yet they remain ineffable, incomprehensible by thought. In contrast, whatever we can grasp conceptually are “generalities” (*samanyalakshana*), words, which have no ultimately real referent objects.

In the Buddhist analysis, “specificities” and “generalities” are rightly regarded as two separate worlds: one is perceived, the other conceived – there is no overlap between their respective domains. The world of specificities is ultimate reality, while the world of generalities is “relative” or “conventional”. It is important to notice that the distinction between ultimate and conventional cross-cuts the dichotomy of name and form or soma-significance. Both the physical and the mental have both an ultimate and a relative aspect, as shown in the next diagram:

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Bohm also notes the distinction between ultimate and conventional reality, calling them “subtle” and “manifest”, respectively. However, he stresses the relativity of the distinction:

Reality has two further key aspects, the subtle and the manifest, which are closely related to soma and significance. (…) This distinction of subtle and manifest is clearly only relative, since what is manifest in one level may be subtle on another.

So there is no question of identifying the physical with the manifest or the mental with the subtle. Nevertheless, Buddhist epistemology points out that the physical aspect of existence, in general, is known by perception, while the mental aspect is conceived by thought. Similarly, to Bohm:

By such an aspect, we mean a kind of view or a way of looking. That is to say, it is a form in which the whole of reality appears (i.e., displays or unfolds), either in our perception or in our thinking.

Clearly, name and form are both all-inclusive ontologically: the difference is epistemological. When we emphasise the primacy of physical reality, we imply an epistemological bias towards the testimony of our senses. Similarly, when we insist on the pre-eminence of the mental, we betray our predisposition towards thought. Just like Buddhism, Bohm emphasises that both aspects should be given equal weight and consideration:

Clearly, each aspect reflects and implies the other (so that the other shows in it). Although we describe these aspects by using different words, we imply that they
are both revealing the one unbroken whole of reality, as it were from different sides (rather as two different two-dimensional views of an object may reveal the single whole object as it is in three dimensions).

He likens their relationship to that of magnetic poles: though conceptually separated, they are actually “two aspects of one overall indivisible reality”. As Bohm emphasizes, “nothing exists in this process of soma-significance, except as a two-way movement between the aspects of soma and significance.” This brings to mind the Mahayana Buddhist understanding of dependent arising (pratitya-samutpada), where ephemeral physical and mental phenomena arise in dependence on (or in relation to) each other, while each is lacking inherent existence. Neither exists in its own right.

We regard them as two aspects introduced at an arbitrary conceptual cut in the flow of the field of reality as a whole. These aspects are distinguished only in thought, but this distinction helps us to express and understand the whole flow of reality.

In Buddhism, just like for Bohm, name and form are “two aspects introduced at an arbitrary conceptual cut in the flow of the field of reality as a whole”. This field of reality is called *dharmadhatu*, a term referring to a felt experience, the mutual embeddedness of the physical and the mental. The Yogacara branch of Buddhist philosophy asserts that the indivisible wholeness of the *dharmadhatu*, devoid of subject and object, is ultimate reality, while their apparent separation is just an illusion. That is, by maintaining the dualities of subject and object – internal and external, mental and physical, name and form – we introduce an arbitrary, though convenient, “conceptual cut” in the unbroken flow of reality.

3. Karma as signa-somatic activity

Bohm distinguishes two aspects of the dynamic relationship between name and form: the soma-significant and the signa-somatic. The first refers to the process by which form is imbued with significance or meaning:

We have thus far emphasized the significance of soma, i.e. that each somatic configuration has a meaning, and that it is such meaning that is grasped at more subtle levels of soma. This may be called the soma-significant relationship.

The soma-significant relationship implies that what we see, hear and touch has *meaning* to us, and we act accordingly. This is exactly why Buddhist philosophy subsumes all mental phenomena under the category “name” (nama). The process of naming, however, is not just a passive recognition of what has been perceived as such-and-such. It has an intentional aspect, which Bohm calls the signa-somatic relationship:

We now call attention to the inverse signa-somatic relationship. This is the other side of the same process, in which every meaning at a given level is seen actively to affect the soma at a more manifest level.

The meaning that we assign to the form that we see, hear and touch actively affects the way we perceive reality. Buddhism highlights the fact that the signa-somatic
relationship usually goes unrecognized. It is an unconscious process. Normally we do not notice our participation in the shaping of our reality. We tend to think that we only react to what we perceive, without noticing how our thinking habits subtly influence our perceptions. If we do not question the validity of our subjective interpretations, we may give rise to mental afflictions such as avarice, anger or jealousy. When we act compulsively, motivated by such destructive emotions, we may experience unwanted consequences such as the pollution of the environment or the deterioration of our human relationships. Still not noticing the connection between our actions and perceptions, we may grow even more acquisitive or furious and continue to act impulsively under the assumption that our version of reality is the way things are. Thus we dig ourselves deeper and deeper into an illusion of separation – an unhealthy state of mind. When we give free rent to our afflictive emotions, we are drawn into a vicious circle of suffering (called samsara) and experience endless confusion. This self-sustaining chain of action-and-reaction is called “karma” in Buddhism. As Bohm puts it:

It is evident that this typical form of a runaway feedback loop between the soma-significant and the signa-somatic is deeply involved in a wide range of neurotic disorders.

Indeed, the different “samsaric realms” (lokas) mentioned in Buddhism can be understood as the unfoldment of different “neurotic disorders”, which are actually visions or hallucinations of the confused mind. As Bohm describes the process: “the significance of the soma feeds back signa-somatically, to change the soma in such a way as to increase the significance yet more.” Our most fundamental mental affliction is ignorance – not knowing the way things really are, that is undivided. This ignorance is the root of samsara. The feeling of separation creates pain, which invites a whole range of possible reactions. (These are delineated very clearly in the famous “Tibetan Book of the Dead”.) We may react in fear, trying to hide and protect ourselves, and consequently be reborn in the animal realm. We may react aggressively, trying to eliminate what we perceive as threatening to our integrity, and find ourselves in one of the hells. We may become exceedingly acquisitive and possessive, trying to grasp at whatever we think would enhance our feeble security, which leads to rebirth in the realm of the “hungry ghosts” (pretas). When we exhibit pride in what we have, we may end up in the heavenly realms of “god” or divine beings (deva), but such selfish attitude will eventually result in a fall. Or again, we may be ruled by envy or jealousy and harbor ambition to “get to the top”, but our frustration confines us in the world of the titans or demi-gods (asuras). Finally, if all these neurotic disorders are balanced, but we are still ruled by greed and attachment, then we are born in the human realm. Though still confined by limitations, the human realm is most conducive to the elimination of suffering and the achievement of liberation, because here at least we can realize our predicament. By becoming more and more conscious of how we feel, think and react, we can discover the law and workings of karma, and also begin to see how we can get rid of our afflictions. The first step is recognition:

From each level of somatic unfoldment of meaning, there is then a further movement leading to activity on to a yet more manifestly somatic level, until the action finally emerges as a physical movement of the body that affects the environment.
In psychological terms this is what we call “conditioning”. Since we were born, (or even previously, if we believe in reincarnation), we have been conditioned by a social environment to assign certain meanings to our perceptions. These meanings condition us to manifest certain kinds of activity, regarded as more or less “proper” in the social context. (For example, when we conclude that what we see in front of us is a cup of tea, we may manifest the proper activity of drinking.) What we need to realize is that this conditioning is mutual – it goes both ways. Our “naming” is not just a passive function, it is also an active process. When we call a cup a cup, we do not simply recognize an object “out there” designed to perform a certain function (drinking), but we also actively contribute to the construction (or, as Bohm would say, unfoldment) of the cup as an object of perception. Thus the physical movement that we make as we extend our arms towards the cup affects our environment not just in an ordinary way (so that the cup is lifted off the table), but also, more fundamentally, it contributes to a world in which cups in general have significance. Buddhist epistemology calls this artha-kriya, “ability to perform a function”, which is the most distinctive mark of reality. As mentioned before, the object of sense perception is highly specific, and therefore it has no meaning in itself. What provides meanings is the mental act of apperception, which implies generalization. Signa-somatic activity is based on the conceptual isolation of functional entities from the flow of reality as a whole. By manipulating concepts, we try to manipulate the world around us. What is most striking in both Bohm and Buddhism is that neither permits an independent existence to these entities – whether they are physical or mental – but rather treats them as a process:

(T)here is a two-way movement of energy, in which each level of significance acts on the next more manifestly somatic level and so on, while perception carries the meaning of the action back in the other direction. (…) We emphasize here that nothing exists in this process of soma-significance, except as a two-way movement between the aspects of soma and significance, as well as between levels that are relatively subtle and those that are relatively manifest.

There is a two-way movement between the relatively subtle aspect of significance and the relatively manifest aspect of soma in each moment of experience. The significance or notion of the cup that I am drinking from is relatively subtle (i.e. intangible, elusive) compared to the relatively manifest somatic configuration that is the cup, which I am holding in my hand. Yet, the two cannot be separated at any level. The soma-significant and signa-somatic aspects of the process flow together simultaneously, and this is what makes a cup a cup – an apparently concrete, definable experience (as when I say “I am drinking a cup of tea.”). The two-way movement of soma-significant/signa-somatic activity – called by Bohm “the holomovement” – through varying degrees of subtlety and refinement ultimately extends into the whole structure of reality:

Indeed, insofar as we know it, are aware of it, and can act in it, the whole of Nature, including our civilization, which has evolved from Nature and is still a part of Nature, is one movement that is both soma-significant and signa-somatic.

Buddhism agrees. In Buddhist cosmology the whole universe is created by karma. In Hinduism and Buddhism, the universe – or rather, universes – do not have an absolute
beginning. Rather, they go through cosmic cycles of evolution, existence, involution and non-existence. Within each cosmic cycle, there are smaller or shorter cycles, containing yet shorter ones, and so on indefinitely, until we reach the breath cycle or the pulsation rate of a photon. In Bohmian terms all these cycles may be conceived in terms of a two-way holomovement between the somatic and significant poles of experience. At each level, the universe is structured around meaning. “What is it all about?” is the basic question. Bohm relates how through evolution, there has been a development of conscious awareness reaching its apogee in human consciousness:

It is in these higher levels that soma-significant and signa-somatic activity show up most directly, in the fact that the word meaning indicates not only the significance of something to us, but also, our intention toward it. Thus I mean to do something signifies I intend to do it. This double meaning of the word "meaning" is not just an accident of our language, but rather, it implicitly contains an important insight into the over-all structure of meaning.

In Buddhism, karma is defined as volition or intentional action carried out on three, more and more subtle, levels: the physical, the energetical and the mental. The first is physical action, the second mainly verbal, while the third refers to thought. Since it is in thought that we attribute all kinds of meanings to reality, Buddhism considers the third level of karma of primary importance. As stated in the opening lines of the Dhammapada, one of the most popular Buddhist scriptures: “All that we are is the result of what we have thought: it is founded on our thoughts, it is made up of our thoughts.” Just like meaning, thought is also a double-sided word: it refers back to a meaningful experience that has become a memory, and at the same time it also projects an intention into the future. Thought thus gathers past and future into a single event; so it is hardly an exaggeration to say that it is all that we are. It is in thought that we mean to do something, and this meaning is based on the perceived significance of the moment, conditioned by our previous perceptions and experiences:

(I)n the process of soma-significance it is not possible to form and sustain intentions that do not grow out of this totality of significance. (…) Meaning and intention are thus seen to be inseparably related, as two sides or aspects of one activity. In actuality, they have no distinct existence, but for the sake of description, we distinguish them (as we have done with soma and significance, and with the subtle and the manifest). Meaning unfolds into intention, and intention into action, which however, has significance, so that there is in general a circular loop of flow.

This is a very accurate description of what karma means in Buddhism. It is a self-sustaining loop of energy flow, which goes on unawares in the flawed conviction that there is a lasting and permanent, unitary “I” or subject of all experience, as well as a separate, objective reality “out there”. Our intentions and karmic actions are far from being conscious or deliberate. Rather, they often flow out of control and lead to “unintended” consequences (as mentioned earlier). It is by learning “the full meaning of our intentions” that we may begin to break the chain of karma and discover true freedom of mind. Bohm also emphasises the role of imagination in signa-somatic activity. In imagination, he says, one can display one’s intentions along with their expected consequences and modify them before they are acted out. Thus, amplifying
the creative aspect of our signa-somatic activity, we can begin to learn and change the direction of our actions, so they may lead to more happiness and less suffering.

What is important here is that intention constantly changes, in the act of perception of the fuller meaning of its implications, and that the resulting action changes accordingly. Even perception itself is included within this over-all activity of meaning and intention. What one perceives is not the thing in itself (which is unkown or unknowable, if it has any meaning at all). Rather, no matter how deep or shallow one's perceptions may be, what one perceives is what it means at the moment. Intention and action then develop in accordance with this meaning.

The mental side of life is thus crucial in the formation of our experiences, because in the mind one can experiment with meaning. Bohm illustrates this point by referring to the work of the well-known psychologist, Piaget, who has studied the growth of intelligent perception in children. Stated briefly, he found that learning was a continuous effort at the exploration of meaning, guided by the soma-significant/signa-somatic feedback mechanism just described. As the child begins to explore her environment, she is motivated by a keen interest or intention to perceive the object – a piece of block for instance. Her initial intention unfolds into actions, and the results obtained – e.g. information about the weight and texture of the object – give her feedback about the “fitting or non-fitting” of her original intention. Meaning is then refined according to the new information, which then stimulates further sensory exploration and so on. The process continues until the child learns how to handle the block successfully. This two-way movement can also be described as a constant alteration and repeated comparison between the sensory input and a mental image forming in the imagination. The end-result, at least ideally, is a perfect mental replica of the object, which serves as a satisfactory model for dealing with its somatic counterpart.

Buddhist epistemology, as we have seen, regards ultimate specificities and conventional generalities as two different domains, which can never overlap. True knowledge, nevertheless, can only be obtained by a successful correlation between the two aspects. Name and form, soma and significance are united in meaning, which consists of a necessary correspondence between sensory perceptions and mental images. We have seen that the former are always momentary, evanescent. Mental images, on the other hand, suggest the idea of permanence; they make the object look like a solid, stable entity. Called in Sanskrit *pratibimba*, reflections, they represent a mental exclusion of all that is incompatible with the object (we will return to this shortly). Formulated in terms of this system, ignorance (the root of samsara) consists in the mistaken identification of the object with the mental image. Paradoxically, as we learn to associate a mental image successfully with a certain type of experience (learn to identify a piece of block as a piece of block, with all its implications), we also fall victim to ignorance, in as much as we take the two to be identical. This amounts to saying that in the process of learning we somehow lose our childish innocence, so we can never again look at a piece of block as fresh and new, open to all kinds of possibilities. We simply regard it as piece of block – all too well known, uninspiring. Correct mundane knowledge also implies confusion, because we confuse the real with the unreal, and take this identification to be granted. This confusion is the basis of karma, which creates samsara with all its sufferings.
Later in his paper Bohm summarises very eloquently the law of karma:

(O)ur action toward the rest of the universe is ultimately a result of the totality of what it means to us. But since we are proposing that everything acts according to a similar principle, we may say that the reaction of the rest of the universe to us is its signa-somatic response according to what we mean to it.

4. Unfolding meaning

What we are aiming at in our exploration of knowledge is a faithful representation of the world. In practice, however – as we all know from personal experience – such a faithful representation is difficult to obtain. What is more, Bohm argues that it is theoretically impossible to arrive at an absolutely perfect mental representation of the world in all its aspects. While it seems fairly easy to form an accurate mental picture of a piece of block, it is not so with other, more complex or subtle phenomena. In actual reality the process of learning may go on indefinitely. On the one hand, this may be due to the significant aspect or the imaginative nature of the mind:

This alteration [between sensory input and mental image] arises from a deeper level of intention, which is concerned with bringing about harmony between the detailed content of the intention behind the display and what actually appears in the imagination. In this way, there can arise an indefinite extension of inward soma-significant and signa-somatic activity, that is relatively independent of the outgoing physical action and incoming physical sensation. Such activity is roughly what is meant by the mental side of experience.

The process of learning (gathering information and obtaining knowledge) may continue indefinitely because the mind always seems to be capable of making new connections, associations and ideas. The process can never come to an end. Furthermore, totality can never be known because the very act of knowing implies that there is yet something to be comprehended beyond what we already know:

At the limits of what has, at any moment, been comprehended are always unclarities, unsatisfactory features, failures of intention to fit what is actually displayed or what is actually done.

In Buddhist terms, karmic action can never yield completely satisfactory results. Why is it so? It is because it comes from ignorance. So long as we act under the assumption that there is an independent actor and an objective world to be acted upon, the objects of knowledge as well as the deeds can never be exhausted. Samsara is the unchecked flow of the holomovement, where the two poles of experience are conceived dualistically. This is what Bohm calls the explicate order. At the same time, all meanings flow forth from within a deeper reality, which Bohm calls the implicate order. Buddhism calls it many names, of which the most well-known is nirvana. At the most basic level of meaning, nirvana is the extinguishment of desire, where karmic impulses (unconscious intentions) cease to operate. There is no personal will left in nirvana. So long as we consider nirvana something to be attained, we can never reach it because there is still a subtle intention, which reflects our dualistic approach.
Nirvana can only be attained here and now, by being fully present in the moment. This moment of full and total presence is the very moment in which meaning unfolds:

What is implied by the above is that meaning is capable of an indefinite extension to ever greater levels of subtlety and as well as of comprehensiveness (in which process there is a movement from the explicate toward the implicate and vice versa). This can actually take place, however, only when new meanings are being perceived freshly from moment to moment.

Thus we can distinguish two meanings of meaning: meaning as a dead concept and meaning as a living process. (Of course in reality the two, just like Bohm’s two orders, can never be separated.) When the mind is dominated by dead concepts, it may be called a “samsaric mind-set”. Such a person lives entirely in the “explicate order”, dominated by dualistic thinking habits and intentions. He believes in the absolute truth of his convictions (whether religious or scientific), and is entirely closed before new meanings. On the other hand, when meaning is experienced as a living process, there can be no absolute convictions. Every meaning is momentary and there is no room for attachment to any ideas. Such a person lives in nirvana, always realizing emptiness, the open space of ever-new possibilities. Mahayana Buddhism asserts that staying in this openness one participates in “the omniscience of the Buddha”. The possibility of such omniscient awareness derives not only from an indefinite extension of subjective significance, but also from the objective aspect of soma:

Thus far, we have given reasons why meaning is capable of indefinite extension to ever greater levels of subtlety and refinement. However, it might appear at first sight that in the other direction, i.e., of the manifest and the somatic, there is a clear possibility of a limit, in the sense that one might arrive at a bottom level of reality.

According to the materialistic view of the universe, reality consists of minute building blocks of matter – just like in early Buddhist philosophy, where dimensionless particles were hypothesized as the ultimate constituents of form. Later Mahayana philosophers, like Nagarjuna, effectively refuted this naïve-realistic idea, pointing out that the notion of a partless particle was self-contradictory. If an atom had any measurable dimensions, it could be subdivided into further components, and hence it could not be an atom (atom meaning ‘indivisible’). On the other hand, if atoms were truly dimensionless, how could they add up to extend into any dimension? It is truly surprising that despite this simple logic (not unknown in European philosophy) and despite repeated failures to capture the bottom level of reality, the search for the ultimate particle still haunts modern physics. However, as Bohm points out:

What is of crucial importance is that if there were such a bottom level, its meaning would in principle be unambiguous. It is not commonly realized, however, that the quantum theory implies that no such bottom level of unambiguous reality is possible.

If science could ever arrive at a definitive understanding of reality, there would be no room left for differing interpretations. We would have reached the bottom level of reality and there would be no more doubt. Taking the naïve-realistic epistemological
stance, modern physics discovered the ultimate description of the universe in the form of the Schrödinger Equation, “but they found the reality which the equation describes is random, indefinite, inscrutable, and indivisible to be a far cry from what they had expected. Virtually overnight, the comforting world of discrete localized particles had evaporated into an omnipresent phantasmic haze of statistical probabilities.”

Mainstream quantum theorists like Neils Bohr accepted Shrödinger’s Equation as a useful mathematical formulation for predicting experimental results, but at the same time denying that this probability wave actually reflects a quantum reality. At the quantum level, at least, reality was deemed inherently unknowable and the quest for truth was practically abandoned. By relating the issue to the problem of meaning in general, Bohm takes a more sophisticated approach:

The mathematical equations are in no sense an unambiguous reflection of an independently existent reality that would underlie the phenomena (or appearances) which are to be found in a measurement. Rather, they merely help to give an ambiguous and context-dependent meaning (generally statistical) to such phenomena. Thus, in any attempt to measure the position and the momentum of a particle very accurately, there is an inherent ambiguity in the values of each of these quantities. This means that ultimately, there is no unambiguous context independent bottom level of reality in physics, beyond the phenomena themselves.

What Bohm emphasizes is that all meanings are context dependent. It is impossible to abstract an absolute meaning from any given situation without relating it to the whole set of circumstances in which it appears. Thus all meanings are relative. This is also an aspect of what Buddhism calls *pratitya-samutpada*, dependent arising. The *dharmadhatu* or field of reality can also be construed as a field of meaning, where all momentary (or empty) phenomena stand out against a background of other factors from which they are differentiated. Buddhist epistemology contends that all meanings represent exclusions of their opposites. Thus, elephants are singled out from the unitary field of reality by differentiating them from non-elephants. “Exclusion of the other” (or *apoha* in Sanskrit) entails the emptiness of all concepts. There are no elephants as such; they are only momentary phenomena (unfolding from the implicate order, as Bohm would say, moment by moment) to which we, out of habit, impute the idea of an elephant. However, if we try to look for the elephant, we cannot find it. It is composed of different parts like four legs, a trunk and so on – the elephant itself fades indefinitely beyond the mental horizon. The whole is just a mental imputation, an arbitrary entity sustained by a mental image, which produces the illusion of concreteness. Now, if we cannot find an elephant, how could we find a minute particle?

The kind of situation described above is, of course, what is pervasively characteristic of mind and of meaning. Indeed, the whole field of meaning can be described as subject to a distinction between content and context, which is similar to that between soma and significance, and between the subtle and the manifest.

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All meanings are characterized by *apoha*, the “exclusion of the other”. When something manifests for the mind (like the somatic configuration called “elephant”), it is embedded in a contextual environment of subtle significance, which remains hidden until it is addressed. Now when we investigate the context, it also becomes a mental content that is dependent on a further context, and so on indefinitely. The significance of any particular level of content is thus dependent on its appropriate context, which may include indefinitely higher or subtler levels of meaning. In Bohm’s terminology, the universe unfolds from the totality of these higher contexts, which he calls the implicate order. We have already observed the analogy between the implicate order and nirvana. Now let us take a step further. In the Mahayana Buddhist understanding, nirvana cannot be separated from samsara (Bohm’s explicate order). Rather, it is the field of emptiness (*shunyata*) in which samsara appears. Nirvana is the contextual background of samsara, but this background also fades into the distance as we try to approach it. That is why nirvana cannot be achieved in a linear path of progression. As mentioned before, nirvana (or emptiness) is the present moment in which meaning unfolds.

The analogy between the implicate order and meaning is thus fairly clear. (...) This view therefore implies that everything, including ourselves, is a generalized kind of meaning.

Meaning is a two-way relationship obtaining between the two poles of experience, however we may define them. They may be called soma and significance, explicate and implicate orders, or samsara and nirvana. It is a constant movement of unfoldment from the implicate order towards manifestation (the signa-somatic relationship), and a simultaneous enfolding of the manifest into the subtle (the soma-significant relationship). All existents – including our body-mind (“name and form”) – arise in this process of dependent arising or mutual co-production. There is a two-way flow of energy between the two poles – let us recall the analogy of the magnetic field – but neither exists inherently or independently. Rather, they both arise in the relationship that is meaning. Bohm emphasizes that this implies a radically new understanding of the body-mind problem:

Clearly, the above notion greatly simplifies the problem of how one may understand the relationship between mind and matter. For now, there is no absolute distinction between them. Rather, there is only the one field of reality as a whole, containing the universal but relative distinction between generalized soma and generalized significance (which as we recall are not separate entities or substances, as would be psyche and soma),

The same idea is also found in Buddhism on various levels. One is the samsaric body-mind, a transitory complex composed of many different factors (such as bones, blood, feelings and volition for instance), plus conditioned by a number of external conditions (such as food and oxygen). Here we can also see that each manifest content is set within a certain context, which defines its relative meaning. For example, life is defined in the context of death. On the absolute level, which is the whole field of reality or *dharmadhatu*, this relative distinction does not exist anymore. Rather, there is dynamic relationship between the *Dharmakaya* (generalized significance) and the *Rupakaya* (generalized soma). These are the two main “bodies” – or rather, existential modes – of the Buddha, someone who has transcended the duality of life and death.
The Dharmakaya is emptiness, the subtle mental mode of the Buddha. It is pure awareness, unadulterated by any provisional feelings and thoughts. The Rupakaya is the dynamic manifestation of energy, which arises spontaneously due to the Buddha’s previous aspirations to fulfill the needs of all sentient beings. What is important in this context is that Buddhism underscores Bohm’s insight, namely that the significant and somatic aspects of meaning cannot be separated even at the ultimate level.

We are proposing that not only do we move toward ever greater degrees of subtlety as attention goes deeper into the mental side, but that this also happens as we go deeper into the physical side. One may even surmise that perhaps both sides ultimately meet at infinite depths, on a ground from which the whole of existence emerges. But because of the necessary dependence of each level on yet more subtle contexts, there can be no finite bottom level of reality.

The idea of an ultimate ground of being has also come into play in the history of Buddhist thought. It is a question that has been tackled with great care, precisely because – as Bohm suggests – it might be confused with a bottom level of reality. The difference, in Buddhist terms, is that an ultimate level would have to have substantial existence – which is not possible since everything is empty or context-dependent. An ultimate ground, however, can be conceived as the source of all phenomena or meaning, while being empty at the same time. In Sanskrit, this ground is termed alaya, and it has been associated mostly with consciousness. The Cittamatra or “Mind Only” school in fact asserts that it a “ground consciousness” (alaya-vijnana) which stores all individual’s karmic predispositions in a dormant, seed-like state. All experience is regarded as the manifestations or display of this ground-consciousness, as waves are manifestations of the sea. There is an obvious analogy here with Bohm’s implicate order, often conceived as a vast ocean of energy which sends ripples onto the surface (the explicate order). Madhyamaka philosophers reprimand the idea by pointing out that the surface could not be separated from the sea, and therefore it is misleading to identify alaya with consciousness. In the latest stage of Buddhist thought the concept of the Tathagatagarbha or “Buddha-nature” developed, which modified the concept of alaya. The ground of being was conceived as the infinite potential of the empty mind, which is also luminous. The Buddha-nature was thus identified with the clear-light nature of the mind. The nature of mind is both luminous and empty – there is nothing substantial in it, and yet it is not just mere void. It holds the seed-potential of all and everything, without itself being anything at all.

Let us sum up briefly what has been said so far. Bohm suggests the introduction of the phrase “soma-significance” to deal with the mind-body problem in terms of their fundamental unity. He emphasizes that reality is a two-way movement between the somatic and significant poles of experience, which cannot be separated at any level. We have seen how the Buddhist notions of name and form offer an interesting parallel to Bohm’s significance and soma – especially in the Mahayana understanding of dependent arising – and how the Buddhist conception of karma appears to correspond exactly to what Bohm understands by signa-somatic activity. We have also seen how the problem of meaning has a crucial role to play in the equation – not just for Bohm, but also in Buddhism. This fact is highlighted in Buddhist epistemology, which insists that true knowledge can only be attained by a successful correlation of a sensory (somatic) input with a (significant) mental image. In other words, meaning grows out of the total situation as a two-way flow between the somatic and significant poles of
experience. Wherever we introduce a conceptual separation in the flow, we will still get the two poles on each side. In Bohm’s own words:

(O)ne can consistently treat the whole of nature in terms of a generalized kind of soma-significant and signa-somatic activity. That is to say, in the universal flux, a conceptual cut can be made at any point and as with the magnetic field, the two poles of soma and significance will necessarily arise at each such cut. If another cut is then made, the flux between them can thus be understood as a soma-significant and signa-somatic flow from one of the extremes to the other end and back again.

Finally, we made the observation that a bottom line of meaning can never be reached in principle. This is because all meanings are ambiguous or dependent upon context, which can be refined indefinitely both in terms of their significance and in the direction of soma. In unison with Buddhist philosophy, which has always insisted that reality could not be reduced to any one substantial component, Bohm asserts:

To look at the universe in this way is indeed more consistent than to suppose that there is an unambiguous bottom level at which such considerations have no place.

The ground of being is a unity, but it cannot be grasped as such. Rather, it can be understood as a complementary between the two opposites, as well as a relationship that is the two-way energy flow of the holomovement. In this dynamic relationship, matter, energy and meaning cannot be separated, rather they mutually embrace or enfold each other:

(E)nergy enfoils matter and meaning, while matter enfoils energy and meaning. Also, meaning enfoils both matter and energy. For whatever we may see and know of these, this has to be apprehended through its meaning (…) So, each of these basic notions enfoils the other two. It is through this mutual enfoldment that the whole notion obtains its unity.

In Mahayana Buddhism, the ultimate unity and mutual enfoldment of mind (or meaning) and matter is most notably expressed in a famous statement from the Heart Sutra: “Form is emptiness and emptiness is form.” The ultimate nature of form is emptiness, but emptiness cannot be separated from the form in which it appears. Thus every form is a dynamic manifestation of emptiness, while the ultimate meaning of all forms is emptiness. Emptiness is the ultimate meaning of every form, as well as the ultimate nature of mind. When this ultimate nature is realized, one “attains” the pure awareness of Dharmakaya, which is empty of all concepts. Thus the Dharmakaya can be regarded as the ultimate source or matrix of all meanings and forms. Most notably it is the source of the Rupakaya, the Buddha’s Form-body, which appears spontaneously “as the reflection of the moon on the surface of a lake”. The Rupakaya has two aspects: the Nirmanakaya or “Body of Magical Emanation”, which is the appearance of the Buddha in the ordinary physical world, and the Sambhogakaya or “Body of Enjoyment”, which is a subtle visionary form apprehended only in highly refined meditative states. In the exoteric Mahayana tradition the Sambhogakaya is understood as the form in which bodhisattvas (trainees in buddhahood) can communicate with Buddhas, enjoy their presence and get teachings from them. This is
also the basis of the idea of the “Pure Buddha Lands”, the perfect “somatic”
environment of a Sambhogakaya Buddha (like Amitabha), where some devotees hope
to find safe haven from samsara after death.

The esoteric or Tantric school of Buddhist philosophy presents the Sambhogakaya in
a radically different manner. It emphasizes that the Sambhogakaya is the energy level
of all experience, which can be accessed in any moment. Attunement to this energy
level is facilitated by complex mediation practices like visualization of one’s body
and environment as pure appearance, conjoined with mantra recitation. The exercise
begins by dissolving all impure samsaric experience in emptiness, the ultimate nature
of the mind (dissolving all meaning in the empty matrix of meaning), then the pure
appearance of the Buddha deity’s mandala enfolds, and finally the whole vision is
again melted into emptiness. This may be compared to the unfoldment of the explicate
order (or orders) from the implicate order and their enfoldment back therein.
However, what appears as a linear process of unfoldment and enfoldment is a basic
unity of the three levels of matter, energy and meaning. It is the dynamic relation
between those three aspects that generates the appearance of a temporal process.

5. The meaning of meaning

The three Buddha-bodies are not three different entities. Rather, they are three aspects
of an over-all process, which is the spontaneous dynamic of being-and-meaning. The
esoteric tradition likens the three kayas to a crystal ball, in which all images of
samsara and nirvana appear spontaneously. The crystal ball is a metaphor for the
nature of the mind itself. The Dharmakaya is pure awareness or the emptiness of the
mind. The Sambhogakaya is its cognitive brilliance, and the Nirmanakaya its free
capacity for reflection. All experience is the spontaneous manifestation or display of
the three Buddha-bodies. To suggest a crude analogy, the Dharmakaya is empty
space, the Sambhogakaya is light (or energy) and the Nirmanakaya is matter. These
three cannot be separated. While all three are naturally enfolded into each other, the
whole gains its coherence and meaning from the Dharmakaya.

The symmetry of meaning, energy and matter in the above respect is, however,
not complete. For evidently, even the differences between matter, energy, and
meaning are themselves enfolded in meaning. The total field of meaning
therefore enfolds itself; that is to say, there is a meaning of meaning.

I would like to suggest that the analogy for the “meaning of meaning” in Buddhism is
dharmata. It is usually translated as “the nature of phenomena”, “reality” or “the way
things are”. It literally means the “dharma-ness” or “thing-ness” of all phenomena. It
suggests the idea that “things are just what they are” – without any complication or
further reference. It signifies simple perception from the Dharmakaya perspective –
which is actually not a perspective at all. In fact, it is synonymous with emptiness.
When we ask: “What is the meaning of meaning?” we really ask “What is the
meaning of life and death?”, “What is the meaning behind all this?” Buddhist
philosophy suggests that the question itself is empty. There is not any extra meaning
beyond what is. Nevertheless what is, at any given moment, is nothing less than the
totality. The three Buddha-bodies are spontaneously present at each moment of
experience as the spontaneous unfoldment of meaning. This is what might be called
“the meaning of meaning”.
Within the field of meaning as a whole, it is possible to begin to unfold the meaning of meaning (we have been doing this here to some extent). For example, we have expressed the structure of meaning in terms of the poles of soma and significance, the subtle and the manifest, etc. This can evidently be carried further into indefinitely deeper approaches.

Within the dharmadhatu, the dharmata or ultimate meaning of “things as they are” unfolds in quite a natural way. Every question holds the answer to its own perplexity. If we look at things in terms of soma-significant/signa-somatic processes, rather than as discrete entities, we can begin to explore the structure of meaning in our own lives. Thus we can see how the three Buddha-bodies are spontaneously present in our experience as the inherent dynamic of meaning. This recognition is facilitated in Buddhism by meditation. Meditation entails first the calming of the mind, and then looking into what is without entertaining any thought or idea. Just letting the meaning of meaning enfold by itself, from deeper and deeper levels, until finally the Dharmakaya is an all-encompassing presence. In this state of pure awareness, meaning is never divorced from what it means; every moment of perception refers directly to itself without implying any further complication.

If there is a generalized kind of meaning intrinsic to the universe, including our own bodies and minds, then the way is opened for understanding the whole as self-referent through its meaning for itself.

In this unitary experience of the Dharmakaya every meaning is self-referential, and this is recognized as the ultimate nature of mind. Everything is just what it is, pure by its nature. All experience is fresh and new, dawning as revelation. In meditation one understands that meaning is intrinsic to the nature of the mind, which is beyond birth and death. Rather than mere perception of what is given, it is the very act of creation.

Recalling that meaning is an intrinsic part of reality, we see that such a perception of new meaning constitutes a creative act.

One begins to see through the workings of karma and also begin to understand how it could be altered or transformed. Rather than fixating on mental contents as ultimately real entities, they are perceived as dynamic manifestations of the Dharmakaya (the implicate order), which are capable of multiple interpretations. Without attachment to any one-sided or partial idea, one acts directly out of the implicate order without any conceptual judgment or hesitation.

The content of will and the framework of perceived possibilities within which choice takes place, along with the restriction to the one of these actually chosen, will themselves grow out of the meaning of the total situation that confronts us at any given moment. Or to put it differently, what man does is an inevitable signa-somatic consequence of what the whole of his experience, inward and outward, means to him.

Thus the freshness of meaning is instrumental in accessing the Dharmakaya as the source of higher inspiration both in meditation and in our day-to-day existence. Most of the time, however, creative inspiration seems to be missing from our everyday
lives. According both Bohm and Buddhism, this can be attributed to our ingrained mental habits that prevent us from perceiving new meanings.

In this connection, it is worth noting that our civilization has been suffering from what may be called a failure of meaning. (...) What we intend to say by meaningless is therefore, that there is a meaning, but that this meaning is not adequate. Usually, this is because it is very mechanical and constraining, hence of little or no value. Such mechanical meanings will, as has already been pointed out, be based on long-term memories that are held rigidly, so that they cannot participate properly in fresh creative perceptions.

Buddhism says that these long-term memories extend indefinitely into the past, since we all have had countless lives before. We carry with ourselves loads of conditioning, “mechanical and constraining” meanings that have no value in terms of the situation at hand. Animal fear, for instance, brought with us from an evolutionary past, often prevents us from taking constructive action in the present. The situation, according to a well-known Buddhist simile, is like seeing a coiled rope in a dark room and mistaking it for a snake.

A change in this situation is possible only if a new meaning is perceived, that is not thus mechanically constricted. Such a new meaning, sensed to have high value, will arouse the energy needed to bring a whole new way of life into being. On the other hand, a mechanical meaning tends to deaden the energy, so that people remain indefinitely as they have been.

Whether out of habit, ignorance or sloth, we usually do not recognize that we create our own reality. By constantly seeking an external meaning to life, (something that is external to ourselves, external to what is), we tend to miss the intrinsic meaning of our experience as it unfolds moment to moment. The truth of impermanence, one of the most fundamental insights of the Buddha, also implies that meanings are transitory because our intentions are changing. And by changing meanings, the whole universe changes with us. What never changes is the self-referential nature of dharmata.

Rather, than to ask what is the meaning of this universe (in which man is of course also included), we therefore have to say that the universe is its meaning. As this meaning changes, so also does the universe and all that is in it. Of course, we are here referring, not just to the meaning of the universe for us, but more generally, to what we have called its objective meaning, i.e., its meaning for itself (...). Likewise, we have to say that there is no point to asking the meaning of life, as life, too, is its meaning (which is also self-referential, and capable of changing basically when this meaning changes). What is required for such a change in human life is a creative perception of new and evermore encompassing meaning.

Creative action requires that we ever be “on the spot”, always open to new meanings and perspectives. Buddhist epistemology asserts that in order for an act of perception to be valid, it must be new. There must be no residual echoes from the past. This basic existential stance of being fully present ensures that we are always in touch with dharmata, the meaning of meaning. In this way, one may become a conduit of higher meaning from the implicate into the explicate order. In Mahayana terms, while
mentally one always stays in the Dharmakaya, one manifests in a Form-Body for the sake of all sentient beings.

What is the meaning of creativity itself? This question, like all other fundamental questions, cannot be given a final answer, but requires constant creative perception. For the present, however, one can say that creativity is not only the fresh perception of new meanings, and the ultimate unfoldment of this perception within the manifest and the somatic. Even more, it is the action of the infinite within the sphere of the finite.

We might think of the Dharmakaya as the vast vault of the sky or as an ocean of endless possibilities. It is the infinite space of the mind. Whatever arises in that space is not different from it, rather, it is a finite expression of the infinite within a limited, relative domain. Thus, as one can witness in meditation, all thoughts are like the ocean waves. They come from the mind, exist in the mind and finally dissolve back into the mind. The ocean is infinitely bigger than the waves, and yet the two cannot be distinguished. Waves are the creative manifestation of the ocean.

If one thinks of anything finite as suspended in the ocean of the infinite, one can see that its degree of independence and self-determination cannot be without limits. For whatever is finite arises in the infinite, is sustained and transformed by the infinite, and ultimately dissolves back into the infinite. Clearly, then, the infinite does not exclude the finite, but on the contrary, both enfold the latter within it and envelopes and overlaps it. All finite forms, material and mental, have their ultimate origin and end in the ocean of the infinite. And this is what makes creativity possible, within any finite domain.

The early Buddhist view considers appearances as illusions that we have to get rid of in order to attain tranquillity or nirvana. In the Mahayana Buddhist understanding of the world, appearances are not to be dismissed. Rather they should be used skilfully. By seeing their ultimate reality, which is emptiness, they are to be considered as useful tools for communicating knowledge in the world. All the thoughts we have had so far, all the words we uttered were just appearances, but they were not without any purpose. By matching David Bohm’s ideas with the ancient wisdom of the Buddhist tradition we hoped to show that true knowledge is independent of time and space, not the prerogative of any particular religion or branch of science. Indeed, it is even free of language and thought. And yet, it is through language that we can reconnect to the source of those basic insights that have inspired people throughout the ages, and which have found various expressions in different ethnic cultures all around the world. If we managed to contribute just a little to therediscovery of meaning, then our efforts have not been spent in vain. In our dualistic age it is imperative that we rediscover the basic unity that lies behind the apparent fragmentation of ordinary experience and re-establish our connection with the totality of what is.

So, let us now say that soma and significance, as well as matter, energy, and meaning, are all appearances. It should however be clear by now that appearances are not in general to be denigrated as mere illusions, without value (indeed, illusions are merely persistently false appearances). On the contrary, it is only by correctly, skilfully, and intelligently dealing with appearances that we can come into a harmonious contact with whatever reality may underlie them.
Whatever we say about this is still at best on appearance. But the proposal in this paper is that the notion of soma-significance will make possible a kind of appearance that puts us into much better contact with the basically unknown reality than does that of the duality of mind and matter, with its further division between actor, action, and that which is acted upon.