The Blind Spot of Science: Life, Love, Consciousness and Health

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ABSTRACT
Science is a collective activity, in which many individuals co-operate in the quest for understanding the unknown. One of the simplifying assumptions of classical science, studying *objects*, was that the human observer could be *objective*. This led to an irresponsible situation: the scientist as *outsider* of reality ('playing god'). By this assumption scientists are explicitly implicitly unable to cope with the consequences of their own creation. This approach is leading to extensive damage to Earth, and humanity, and it is necessary to focus on the hidden role of the scientist in science. It will be seen that this focus makes it possible to address what seems to be the blind spot of science: the scientist himherself, and the vital difference between the nature of living beings and dead matter. It appears necessary to, literally, *bring science to life*.
Key Words: Science, Scientist, Life. Love, Consciousness, Health

1 Introduction

There is a direct practical need to a focus on the role of the scientist in science: 1) the functioning of the living being determines the nature of the observations we make: *objective science is based on subjective scientists*. 2) Ignoring the way our *reality is a consequence of our realisation* alienates the resulting models from our daily living. 3) It is the interactions between scientists (*consensus conditioning*) which determine what is (or is not) called "science". 4) Science is but one aspect of human (individual/collective) realisation; other forms are equally valid, although they operate through *different modes of consciousness*/involvement.

Science is a collective social activity which attempts to come to know the unknown. Like religion, it is a study intended to help establish the role of humans in humanity, on Earth, and in the Universe. Science is a social system – a form of languaging – which has been originated in very few cultures. Other cultures have created different forms of symbolisms in their aim to attain the same. Science has historically distanced itself from the position of theology, with its fundamental formulation on the organisation of the universe and creative forces within it. Rather than taking reference to a book already written, science undertook to apply empiricism: the chronicling of direct observation, and sharing the findings with others, for them to ascertain the same for themselves.

This development has now come full circle. Science is currently often held to be the purveyor of Truth. Whatever is not recorded in the annals of science is deemed to be Unscientific. In a sense, again, that what was written down has again become a dogma imposed on others. From a social system for exploration (and Angst Reduction) science

has become an instrument for indoctrination. This seems to be seen also in the rewards for science: the Explorers are 'left in the cold' while the Archivers are 'covered with gold'. In the text this will be explored further. The major problem however is that of objectivation. It is the application of "reductionism": to analyse what we see into essential elements. Those, severed from all their connections to the universe as a whole, are then held to be representative for the whole universe; and 'Universal Laws' based on their observation.

This is the cause for some of the major problems of science: (left brain) analysis has become favoured and severed from (right brain) synthesis. A simile is found in calculus, where differentiation is used for simplification; but integration is often avoided as it calls for a Constant of Integration (the sum total effect of the context that is reconnected to the analysed system). It is clear that analysis and synthesis are not elemental functions but *mental functions*; as is science as a whole. It is therefore impossible (and irresponsible) to discuss science as if it were objective. As it is a mental process, it is inherently subjective. This also means that science does not exist on its own. Even 'Objective Science's' existence is based on Subjective Scientists. This means that the scientists, and how they function, need to be explicit part of the considerations, and descriptions. They determine the outcome of science.

This is the essence of "**Bringing Science to Life**": to include the role, place and function of scientists in science, to be able to appraise the (sought) outcomes in science. It calls for the inclusion – in the formal descriptions – of *the involvement of the observer in the observation.* All mathematical equations and formulations thereby need to be supplemented with components specifying consciousness, health, life and love. Without them, the relative observations between scientists cannot be compared. The purpose of science is *not* to impose, on all scientists (and all people), the same mode of observing and thereby the same observation, but the understanding of all we don't know, by integrating our different perspectives ('fly eye'). Science can make use of all aspects of personal uniqueness: in our brain we have both the capacity for analysis *and* synthesis. "Bringing science to life" calls for the Artists Scientists, which are at the same time Mystic (trained in universal awareness) and (pragmatically) interacting with Earth.

Modern medicine is one of the realms where the understanding of the *scientist* in the creation of science is of fundamental importance. As long as the *role* of the scientist in the making of science is ignored, the models of science cannot be understood to be products of our own making. This also blocks insight in all flaws in these models that result from our own (self)misunderstanding. For this reason it is imperative to consider the **Blind Spots in science**: all those areas in the business of making science, where human involvement (and misconceptions) determine the result.

One clear example is the way Science set out to understand the properties of matter, and managed to create models to predict the properties of *inert* objects. These models have come to be used as basis for the formulation of modern medicine. This is essentially a blunder: living beings are *not* inert objects and need to be understood on a different basis (O#o, 2005b). The formulations of *Classical, 'Objective',* science bases itself on the study of *'Objects'; which our living body is not.* It needs to be understood from an Object(ive) and Subject(ive) perspective at the same time. This requires an

understanding that is able to simultaneously address what is currently often regarded (thus seen) as complementary views: the view from outside *and* from within. What was designed to help offer an understanding of the nature of *Matter*, has become interpreted *as if* it defines the matter of *Nature*. The result is that living beings are gauged by the principles formulated for the properties of materials, which are *lifeless*. The consequence is that the laws of inertia, invariance, uniformity and homogeneity are being applied to living beings; as individuals and collectively, in dealing with persons and with regard to society, health and disease. The result is that humans are commonly regarded as things (objects), society has viewed as a machine (robot); and treated as such. This is clearly seen in '*Modern*' Medicine (which is based on *Classical* Science.) What is left from consideration is the fundamental *difference* between dead objects and living beings. In healing this means a differences between death and life.

Living organisms operate Freedom of Choice (O#o, 2005b). This involves a direct application of a principle of *Dimensional (de)Compression* (O#o, 2003a), which forms part of an operation called *Total System Inversion* (O#o, 2003b), by which *a Part is related to the Whole* (O#o, 2003a). This involves an understanding of their integrative relationship. This cannot be described from an "*Objec*tive" standpoint, in which the part is regarded as if *separate* from the whole, as is wont in Analytical thinking (a left brain mental function). In order to see how the part and the whole *connect*, an integrative perspective is needed, as found in our (right brain) capacities for Synthesis. This requires formulations which transcend the limitations of the definitions of *objects*, to include the dynamics they are composed by. The way in which they embed into their context needs to be part of the description.

This calls for a description that transcends the definitions of 1) the 'objects' to include 2) the formulation of the Boundary itself; and 3) in the description of the system of singular Boundary Conditions, by which the system connects to its context. At a deeper level still, 4), the context itself needs to be understood, as this is the basis for knowing how the local system embeds into it. These transcendental descriptions are found in the form of 2) (the *Variational Set* of the system), 3) the mathematical descriptions of *Singularities* of the system, and 4) the universal *Field Equations* (dimensional phase formulations).

(1) The *Objective* formulations are known in the system of description of Classical Mechanical Material Science. (Scalars.)

(2) The *Variational* descriptions are known in i.a. the Differential Calculus and methods of Statistics. (Vectors.)

(3) The system *Singularities* – crucial for our understanding – are the sites where the system connects to its context, and the effects of the environments co-determine the state and/of existence of the local focal system. Examples are Anomalies, Axioms, and Taboos. The formulations of system singularities have been elaborated in i.a. topology, catastrophe theory (Thom, 1993) and Chaos theory. (Arrays.)

(4) The most fundamental way to address the issue is in terms of *Logic*. This logic is more fundamental than the objects that are defined by them; this is the level where metaphysics defines physics; and the structure of physical space is determined by the organisation of phase space. (Torsions.)

This information domain determines our realisation and reality alike. This links our observations to defining our thinking itself (Fidelman, 1995). It means that the relationship between the object and its context lies in the *observation*, i.e. in the **relationship *between* the object and the observer**. This is also the place where *the Object is identified with a Subject*: the observation takes place *in* an Observer. It means that the *Objective Observation is always tied in with a Subjective Observer*. The *interface* (by which the part relates to the whole) lies *in* the Observation, thus *within* the Observer. This is habitually ignored in "classical" 'objective' science. This makes **the observer a blind spot in/of the system**. It means that the system of science itself as a whole is left undefined (as long as the singularities by which it operates are ignored). (In other words: *science is fundamentally unscientific*.)

In order to analyse how the part relates to the whole, we need to address the process of observation taking place *within* the observer (O#o, 2005b). This offers insight in the synthesis of the universe as a whole; and the role played by any of its parts, including the human (observers) (Wood, O#o, 2005). It offers a different insight also: by ignoring the active (creative and destructive) role of the scientist in science, some very fundamental traits of the scientists have been left out of consideration: the active role of the human in creation. *Humans are not creatures but creators*, and their subjective states determine the objective findings.

This paper addresses four issues: 1) Science, 2) The Blind Spot of Science, 3) Bringing Science to Life, 4) Live Science. Inclusive Science is the term used for the approach in science in which the human observer is not considered to be an outsider. This requires and understanding of the Scientists. The role of the scientist can no longer be excluded from the considerations. The purpose of the paper is to integrate the subjective with the objective; the personal with the collective, reality with realisation, and intent with integrity. As long as science is not 'owned' by scientists, is can be an irresponsible machine, instead of tool for advancement of collective cultural understanding of creation and life.

2 Science

Science is a social instrument; a system for conduct and behaviour based on codes and consensus. At a practical level it helps a society to deal with the Unknown. Religions serve the same purpose. Religion focuses on the subjective aspect; experience. Science studies the objective aspect: observation. Both describe their findings encoded in symbols. On the one hand this seeks to understand the Unknown in terms of the Known (which is a paradox per se). On the other hand it seeks to find ways to yet deal with the unknown where it is not understood. The role of science as system for Anxiety Reduction is at the *collective* level. The 'magical' operations with symbols serve as psychological tool for social functioning, of a culture in its context. (At this level it is based on identifying those instances and events where the unknown may interfere with the known, and demarcate methods to deal with these singularities of our system of realisation ("Reality"). In order to understand and ensure the integrity of science (the social collective process) the following questions will first be addressed.

1) What is Science? (By understanding the main mechanism for conditioning cultural consensus, we can better understand what it is, and want it can (or cannot) do.)
2) What is a Scientist? (By understanding the subjective sensation we can understand the basis of collective realisations.)
3) What is Sciencing? (Is sciencing an industry, craft, art or religion?) and
4) What is Scientific? (Dogma? Truth? Belief? Realisation?)

2.1 What is Science?

Science is a cultural activity, in which individuals act on behalf of the collective. Science, Religion, Trade and Art therein all have equivalent roles in bringing out different aspects of human involvement in life (and society). All of these activities link our Culture with Nature. Each does it in its own way by addressing a different mode of *involvement* with/in our context. By their ways these cultural endeavours all complement each other. *Science* is marked by its stance that what it described, is to be held to be real. (All descriptions are glyphs of code of ideations in the mind of the user; no *description* is ever "real". Symbols are codes operating the way our brain functions.) *Art* accentuates the role of realisation. *Trade* focuses on complementarity of values. While *Religion* reflects the uniqueness of our own being as integral part of (universal) nature.

Each of these aspects of involvement is experienced within every unique person; they complement each other and together offer an integral experience as *Outsider, Participant, Interactor and Co-Creator*. In other words: *together they bridge the perspectives from outsider to insider*.

Science therein represents the view of the *Outsider*. It grew out of opposition to a dominant church rule (a theocracy) in which one worldview (as described in a book) was proposed, then imposed, as valid for all people. The imposition of this worldview debased to a totalitarian dictate (eliminating those offering alternative views), which was upheld even when it was evident that it was incorrect. Science emerged out of the quest to replace dogma by discovery, and reality by realisation. It was a quest for dedogmatisation (Engdahl). The origin of science can be seen as the search for understanding by experience (experimentation, "Empiricism"), of which the findings ware shared with others (publication, "verification"). As a result, "Reality" became the result of a democratic procedure, in which the realisations of individuals were recorded, shared and tested – leading to insights that all could agree on (or (dis)prove for themselves). Over the years this approach has acquired many more members (and funds) due to which this endeavour has become a social institute in itself. This has led to a bureaucratisation, and in fact to a recourse to the Roman regulatory system and the theocracy against which Science sought a solution. As a result Science has now ended up at the place where it started: scientists impose their views rather than propose their vision; and whatever does not correspond with their mental methods or written records is held to be 'unscientific'. This makes science itself unscientific.

This is but one of the contemporary problems of contemporary science. Another is that – as a result of its development history – science has become effective in describing the properties of matter; and has come to apply those findings in domains where they do

not apply. In particular, the findings of material science do not apply to living beings. More concisely: *the formulations of reality of science do not apply to the realisations of the scientists*. The descriptions of physics apply to the physical properties of our body only in part; for the meta-physical abilities for processing information, another description is needed. This is where *science* needs to be complemented by con*science*; and **the study of consciousness**. This is (still) not part of the study of science; although *it defines its foundations*. It is this fundamental shortcoming that is addressed in this paper. We *cannot* use the findings of classical mechanical material science as model for reality. Classical science was a required initial step to formulate a (very simplified, and thereby very crude) method and understanding, for which some reductions and assumptions needed to be made. In a universe where *all* is interconnected, it makes sense to start by viewing something simple, such as the way an apple falls or planets rotate around stars. These observations proved to be effective; and it was found that they were valid regardless of the standpoint of the observer. It led to the model of an '*outsider*' observer; which is fundamentally a misconception in a universe where the evolution of humans formed part of the unfolding of the universe as a whole. Never have humans existed separate from the development of the universe as a whole.

Technically speaking *there are no outsider observers*. This is a finding scientists came to also. After studying the (classical) properties of matter, they found the (relativistic) dynamics of molecules, the (probabilistic) interactions in atoms, and the (unified) phase coherence of subatomic fields. Quantum Theory already proposed that Reality is a Realisation (a collapse of the state vector, due to observer involvement). The scientist is integral part of the universal dynamics of creation; not an 'outsider' but fully involved. Cosmology proposes that out of Phase space the cosmic gas condensed into stars to congeal as planets. This implies that matter is a manifestation of phase information (consciousness) in formation. This notion was however so uncomfortable to the mental conditioning of the scientists at that time that it was decided (the Copenhagen Convention) to ignore the aspects of consciousness, observer involvement, the nature of matter (particles) as form of information and the ongoing dynamics of creation in the resulting perceived states.

The consequence is that Science at present has different aspects: 1) the ongoing quest for *understanding the unknown*, 2) the exchange and *comparison of findings* (research), 3) the *validation of results* and outcomes (consensus) and 4) the *communication of the results* (education). Each of there aspects requires a different form of involvement (e.g. for the fundamental scientist the Known is of little interest in seeking out the Unknown; for the science educator the Unknown cannot be discussed in communicating the Known.) There is however a social implication in the different aspects of science: one of the activities of science is "languaging" (Maturana & Varela, 1980) the creation of new words to communicate new understanding. As long as such new words are not created – and agreed upon – it is not possible to commune and *consense* on the new findings of science. As a result, many people have come to believe that what cannot be communicated (or described) does not exist (as science). This is however not so: what is *described* in science and *written* down in its book is not scientific. As history shows, the descriptions in the textbooks are reviewed daily, yearly and over the centuries whatever

is held to be scientific is different. Science as such is thereby not predictable, not repeatable, not verifiable, thus … *un*scientific: What was held to be true a century ago is now often no longer held to be valid; or in a much more limited context only. The written records of science therefore cannot be held to be the basis of science; nor are they 'true'. They are merely the outcome, the trace (as in a Wilson Cloud Chamber), of the ongoing development of science; stepping stones marking progress. Whatever is written down, given words, is not *real*. It is merely a *description*. Whatever is defined by science is not *true*; it is only *convention* (consensus). Whatever is 'real' is but a *realisation*; individually and collectively. **Reality is a Realisation**. Therefore we need to understand the (subjective) role of the scientist in science; and the principles of sciencing itself: the social process of creating/defining science. This starts within each individual scientist.

2.2 What is a Scientist?

Before we can look at the 'machinery' that creates science – sciencing – we can first look at the components by which 'science' is made. Just as matter is composed of molecules composed of atoms composed of phase organisation, likewise science is composed of scientists upholding ideas based on their thinking. (In both cases it is the immaterial that forms the basis of what we hold to be real.)

Scientists are people. They are no different from other people in the way they function in mind and body. They self-selected themselves and group-selected each other to work together in the social system known as Science. From a larger perspective, Science serves the mentioned purpose of *Angst Reduction* for the culture, by finding out *how* to deal with what we fear. Religions deal with how we feel (fear). Both help us integrate with/in our context. They explore the *unknown* and finds ways to accept it and integrate it into our understanding. The daring *explorers*, the people who *recognise* patterns of nature, those who can *communicate* the findings and those who *archive* the results are all part of the community of science; even thought these reflect different modes of involvement and therefore are often performed by different people. The result may be that Science can appear to be different, when it is presented from each of these different perspectives. This is a reflection of the difference of the *involvement* of these people: not of science.

2.3 What is Sciencing?

Science is a group activity ('sciencing') and thereby not determined by the character of the individual person; although it is based on the work of individual people. It is the *individual* that has the unique experience that leads to insight; it is not a personal affair – it could have happened to any other person. Often it does: it is considered the scientist's mind to observe it, reflect on it, study it and communicate the findings. The last aspect involves a group process, determined by social conventions which differ per culture and per era. The findings of an individual person may as a result be included in the findings of science, or not; depending on the social context. (The same is seen in the

creation of 'pop stars'.) Many people neglect or ignore the role of territorial animal behaviour (and vegetative responses) in the acceptance of new ideas into the established understanding of science. Depending on the personality type, and the role of the scientist in the scientific process (discoverer, verifier, communicator, archiver) their openness/resistance to newness will differ. (This can be described in Open/Closed system properties, in terms of Admittance/Impedance; the relaying of blocking of flow.)

In our current (inherited) social structure this often means – in a hierarchical system – that superiors determine if and how newfound knowledge is incorporated into the system of knowledge. Science in that respect represents *the body of knowledge* of a culture. In some social settings the process is incorporation of new knowledge may be medieval: old role models of the *pater familias*, the guild system, cartel systems and monopolies are all seen to apply. These are relics of 'totalitarian' *Control* models, heritage of a *Slave* Society. This slave model is also represented by the psychology of the physics of *inertial* systems. Control, Truth, Reality and Scientific in a sense often assume similar meanings; similar to those of the theocratic and Roman Rule from the past. (Rome and Greece operated a Slave Society.) The democratic system of free sharing of knowledge is rarely found. The consequence (often overlooked by the general public) is that many of the insights that were developed inside (or outside!) of the community of science remain ignored. In other words: *social rank and beliefs more often determine acceptance and respect of new findings, than the quest for new insight.* As in the world of Art, many of the great inventors and innovators die poor and disrespected, while their superiors or plagiarisers cash in on their success. Sciencing, back stage, in the dressing room, 'back home', is often not at all as glamorous as presented on stage.

One of the aspects to be studied and dealt with is the way in which more and more *science is bought and sold.* Since money as become the measure of success, scientists have been asked to earn money with their work. For the *archivers* of science this is a simple feat: they hold a product they can sell (although it was most often already paid for this is part of our collective cultural assets). The *communicators* of science are most often rewarded for the stories that they tell: most often the stories of others. As a result, those who are able to communicate the message are rewarded more richly than those who write the original story. The *validators* of science can often be swayed – by money – if what they are asked to evaluate is 'scientific' or not; depending on the bias of their funders. Many corporations already are known to 'buy' truth: if they do not like the results they stop funding. The explorers of science often find themselves on their own. Corporate interests regard their work as investment, and wish returns for their money. More and more this means that innovative science goes unfounded; and the funds are awarded in directions which do not deal with the unknown, but with refining the known. The *discoverers* find that they have to see if they can find funding; which (as in Nobel Prize money) often comes when it is no longer needed. This defeats the purpose of science (discovering the Unknown and learning how to deal with it). The consequence is that (increasingly?) support for science goes into redefining, re-establishing and re-affirming what was known already, which slows down the progress of science. (An example: subsidies are given for proven outcome, before the outcome can be proven...)

If science were a community, in which all four personality types supported each other, then the support for new findings would be a logical part of funding. This is the investment in cultural learning. From this, new insights emerge; which can then be validated, communicated and used as a basis for learning. The personal-psychological, the territorial-social, and the financial-regulatory aspects of sciencing need to be studied and taken into account as factor shaping science, as they increasingly limit and restrict the scope and potential of science; due to which the discovering of newness and the adding to collective cultural insight is curtailed.

2.4 What is Scientific?

Scientists working alone together produce a product: science. The way in which they work together (sciencing) alone (science) determines the result (Wood & O#o, 2005). It is their inner mental states, and their ability to 'work' it, which determines the outcome. Their findings follow as logical rules (of our mind and body) as the trajectories of thrown object. Albeit that in the case of mental processes, the outcome is determined by both the invariant aspects of their cognition (reflexes) as well as their ability to deal with the unknown (freedom of thought). Freedom of thought has a double meaning: it is both the ability to change from one line of thinking to another, as well as the possibility to operate beyond thinking at all (the meditative states). It is all the more surprising that in science the mental states are not studied, in fact often scorned. Consciousness research was not held to be 'real science'. It is only over the past century and decades that psychology, sociology, and consciousness research (including studies into the paranormal) has entered into the discussion of science. This is contrary to the basic method of science, where the scientific instrument is calibrated and researched. *Our mind is the most important instrument that scientists use*. To leave it beyond study, and even beyond discussion, is what makes the foundations of science unscientific.

Not only the *personal* psychological basis of science is left out of consideration. (Often it is derogatorily described as "mystical", or "metaphysical" – which in fact it is) The *social* dynamics which co-determine the outcome are likewise often scorned. It is not surprising that as a result, scientific social interactions are often not only dysfunctional, but even obsolete with respect to contemporary social organisation. In many places, the aforementioned Guild System, and even the *Pater Familias* are still seen. This means that the limitation of one person determines the progress (or lack of it) for the whole social organisation. (This is not found in e.g. our body, which cannot afford to be limited by the functioning of one single 'cell'.) Whereas the socio-psycho-dynamics is studied in "the making of a president", "plugging pop stars", advertising and the marketing of movies and warfare, it is *not* studied (nor understood) in science. Many 'scientific breakthroughs' were serendipitous (Pasteur), the result of a dream (Planck), the consequence of mistakes and even deception (Mendel). Yet people choose to believe the outcome. The mythical role of science, the way it manipulates belief (and thereby conditions consensus) is often described for church-craft; but not for science. The consequence is that people do not only know how science comes to be (through sciencing), but they also are unaware what science is. From a larger perspective science

can be compared to Matter. The statements of Science with regard to the Truth of Reality (both of which are terms of devotion) are often meaningless: the immensity of knowledge in the body of knowledge of science is by far beyond the comprehension of any individual person. Per day more is published than anyone can read in a lifetime. In short: *no one knows what is known.* Together with the ignorance, and the ignoring, of the way all findings relate to each other, the 'molecular' (research) and 'atomic' ('findings') of the structure of science/consensus is unknown. Often findings are presented as 'facts' which are later shown to be false, but ignored (cf. Michelson-Morley experiment, Davidson, 1988). Without looking into the personal and collective psychology of dealing with the unknown (sciencing resp. science), the term scientific holds no meaning. It is relevant to bring this point to the fore, because many interests are currently based on what is, or is not, "scientific". *Science has taken over the role of the church; scientists have taken on the role of the priests* of the past in 'deciding' what is real, and what is not. As stated before, much of that judgment is based on personal bias, and on basing oneself on what is written in books. As stated before, 'if it does not correlate to written texts of explicit findings, it is "unscientific"'.

The result is that science, more and more takes on the form of a church; both in its intent and organisation. As with a bureaucracy, the work that is done is more towards upholding what has already been found. Much of the real research (the study of the unknown) is socially and psychologically discouraged. This leaves it to those people who will make up their own mind, and can find their own resources. Yet, as mentioned above, this defeats the purpose of science: to know the unknown. By labelling what is scientific in terms of the *known*, science is lost. Not only is the known held to be the measure for the unknown (which is impossible), but also the outcome of science itself is not understood: as long as there is an unknown, *nothing* of what is known is absolute or valid. *Any* fundamental new insight may overturn and overthrow what was found before. This makes it necessary to integrate mysticism and science. It is *not* possible to come to definitive statements about Closed Systems, as long as the Open System (and the way we interface with it) is ignored. As there is *no* realisation without our involvement, *all* 'objective' science is inherently subjective. This is what needs to be more clearly studies and brought out, both in the topics that are studied, and in creating the languaging by which it can be described. To give a clear-cut example: as long as No*thing* is described by reference to a *Thing*, and even *think*ing has implied reference to a *thing*, it is not possible to regard all that we know about the universe in inverse: if the manifest universe is a consequence of densification of phase space, then (as the alchemists described) it is the meta- (beyond) -physical which is the basis of all we perceive. At this level science and religion address the same reality/realisation.

In order to understand the unknown we need to look beyond the known. This is the basis of Occultism: to look beyond the surface/form which hides (occults) the essence within by which it is formed. *In order to understand the visible physical reality, we need to understand our invisible metaphysical realisations.* This is the essence of the art of abstraction: from physics (matter) through chemistry (molecules) and electromagnetism (atoms) into informatics and logic (subatomic fields). This requires that we have insight not only into what we see, but also into our seeing. This shifts the

focus from models of *Reality* to experience of *Realisation*. This puts the Scientist as the pivot of science. (This is the 'crow bar' Galileo was said to seek, to change the universe as a whole.) At present the scientist is a blind spot of science.

3 The Blind Spot of Science

Science is created by scientists. It is a collective undertaking, in which the role and functioning of the scientists determine the outcome, wholly, by the way they interact. Science is created by scientists, not only as a construct; but also as reflection of the way they function; individually, and collectively. There is therefore no way that it can be said that science – the scientist – is an outsider, 'observer'. The human has originated as *part of* the universe; no human has ever been outside of it, nor apart from it.

The notion of 'Outsiders Observers' is an oxymoron. *Science needs to understand the scientist, in order to be scientific about science*. Scientists are the stuff science is made of. At present, science is apertly unscientific. Not simply because by the way it is practiced: it is technically impossible to adhere to the tenets of classical (mechanistic material) science (predictability, repeatability, invariance, inertia). But also because of the way scientists interact. The development of science has always been unpredictable, unforeseen, erratic, 'illogical'. This is a logical consequence of dealing with the unknown. The boundaries of the known are created by the imposed definitions. Scientists impose them. Often these are projections of the experiences of the past. Anticipation is most often a temporal inversion of experience of the past: a replay of what was. This is part of the psychological mechanism of survival, which is engrained into our body at the animal reflex, vegetative reaction, mineral response levels. It means that our conscious cognitive realisation is based on levels of manifestation which are *much more fundamental than those of our mental awareness*. This is one of the blind spots of science: the cognitive processes beyond our awareness. Without including these 'molecular', 'atomic' and 'subatomic' principles of our *awareness* into consideration, whatever we think is – funda-mentally – unfounded. The quest of science is to relate the phenomena that we perceive to universal principles at the most basic level; this notion can (and needs to) be applied to our *noumena* also. In living beings, phenomena and noumena are related by the dynamic interaction between information and matter (O#o, 2005b). The term "*phenoumena*" can be used to make the link between the two explicit.

These primary response levels of bodily consciousness/awareness are part of the way we function: our body as a whole, the body organs, and the body cells. This is seen in the organisation of our brain, body, and society. Science has limited (crippled) itself by becoming dominantly left-brain oriented (biased), and predominantly 'brainy'. From the perspective of the body the brain – akin to the heart – integrates the flows of information from the body, to return it to the body. The brain does not *direct,* but *corrects* the information that has already been processed in the various body plexus. The model that science has projected onto the body is *not* how the body actually functions. To a large extent, science does not 'see' our actual body. Instead, it projects on it a left-brained model of (slave) control.

(The word "science" often refers to a mythical construct, interpreted by others not involved in the making of science. Within science, the aforementioned groups have, and give, different meanings to the word science. Here the generalised, 'mythical' meaning of "science" is used. Not the organic organism of science and the collective process of cultural learning, but the stifled interpretation of science as 'object' or 'product'.)

One of the blind spots of science is the way sub-cognitive processes lead to the realisations that we call 'thoughts' (as *past* tense of '*think*ing'), and the way this is not studies - or even denied.

By holding (left brain) analysis as the basis of science, (right brain) synthesis a similar effect occurs as is the case in the formation of cancer: the ability to differentiate (and to differ) is part of the potential for identification (thus identity). It turns into idioticity when it no longer realises that this existential uniqueness is part of an ongoing existence. In the cell cycle this is seen in the gap phase: the moment that a cell awaits the trigger from the context to reactivate its cell cycle dynamics. It is this feed-forward-feedback loop that keeps all cycles functionally and operationally connected. As a result, all cells function as ***units***, as part of a ***unity***. Symbiosis is the basis of the way scientists – together –create science. In our brain the ability to differentiate, to analyse is associated with a left-brain function. We also have a right brain, which is as important in giving meaning to science: it integrates finding in context. These brain functions are not only related to the various aforementioned groups of scientists in science, but also for the mentioned relationship between science, art, trade and mysticism. Together they (like the associated areas of the brain) bridge the interface between outsider and insider; objective and subjective (or: object and subject).

One blind spot of (analytical) science is that it 'forgets' that for every *analysis* that is made in studying any object, a *synthesis* needs to be added also to understand how it relates to its context. The relationship between (left brain) analysis/differentiation and (right brain) synthesis/integration determines our own involvement; and thereby how our realisation determines the reality that we perceive (i.e. create).

Together these capacities can bridge the Known and the Unknown. As mentioned above: *objective* science cannot exist, because the scientist is always *subjective* subject. The collective *consensus* conditioning is a consequence of interactions between scientists: determined by animalistic and vegetative natural (mineral) responses. There is a direct relationship between the properties of matter and the way we make use of these in experiencing freedom of choice (O#o, 2005b) Important is the realisation that *science is based on scientists* and the way they function. This means that the scientist *must* be studied (by the scientist) to be able to give meaning to science. As is, the study of the scientists is carefully avoided in the study of science. By assuming, projecting, the scientist as Outsider, the scientist in essence 'plays god'; and is *irresponsible* also: an outsider is *unable to respond.* The damage to earth, caused by technology created by analytical thinking, is but a result. The reconnection between science and scientists is essential. It calls for the understanding of the relationship between the part and the whole. This involves the relationship between the object and the universe; but intrinsically also the relationship between object and subject. The relationship between the known and the unknown, which is the essence of science (discovering the unknown

and relating it to the known). One of the blind spots of science is the degree to which the part can amplify the whole, by being in constructive/destructive interference with/in it. And can thereby constructively create coherence of/for the whole.

Relating the unknown to the known is an internal process: the experience of objective reality is a subjective realisation. This cannot be understood in objective terms. It requires the understanding of subjective experience (realisation), which however transcends the limitations of the model of classical physics (inert material objects). This was made explicit in the formulation of quantum physics, where the involvement of the observer in the observation was made explicit (as the Collapse of the State vector). This understanding has however been ignored cq. denied by the society of science (Copenhagen Convention). The case however is that consciousness needs to be included in the considerations of science; and subjective experience integrated with objective observation. This does however mean that whatever we do, and do not do, affects not only or realisation but also the reality that we actively and passively co-create. A helpful image is that of the cells composing our body. They share a common heritage in the zygote; just as we are part of the (ongoing) Big Bang. In the same manner humanity is compose of the creations of each human being. A major blind spot of science is that (apart from disregarding the active role of the researcher) it regards humans as creatures rather than as creators.

4 Bringing Science to Life

Science, like the materials composing our body, is the *result* of a process. Without the process that shapes it, science will cease to exist. Science as a cultural expression is as fragile as the jet of a fountain that depends on the fountainhead and the water pressure. *Science and technology* form the *mind and body* of a cultural collective language. Science was initially shaped by the study of matter – a logical simplification required as initial step of an exploration which is vastly more complex. It is now time for science to grow up and realise that although the presumptuous simplifying assumptions of the past – in studying physical matter – where *then* of use, they can *now* no longer be afforded. The bias of left-brain dominated analytical thinking is damaging both humanity (humans) and Earth. It needs to be complemented by right-brained integrative realisation. Objects need to be complemented by subjects, matter with information, thinking with being, and substance with life. *Reality needs to be understood to be a realisation.* The classical views of physics (as the study of dead matter, the inert, inertia) needs to be complemented with the realisation of meta-physics as the experience (thus study) of life. "Humans are not creatures but creators" means that *life* amounts to the experience, exploration, study and realisation of *creation.* In this respect we can relate creation to the various ways by which we live it: *Life, Love, Consciousness and Health.* All of these are *Open* System functions. They cannot be identified in any analytical part. What is found in any part is but the residue of the way the Open System reflects in the Closed System.

Life is the experience of ongoing creation actively expressed in parts of the integral system. **Love** is the information substrate by which its dynamics are universally linked.

Consciousness is its intentional experience (or even application) and **Health** is the resultant experience of that integrity with/in our body dynamics. (Likewise Peace is the experience of the same between people and their context.) As these are Open System traits they cannot be described in the 'left brain' analytical terminology that was defined for describing (physical/dead) Closed System objects. However: what is dealt with is the *dual* of what is described in classical closed system inertial *Physics*. We can invert the descriptions and equations) to their complementary form and obtain the formulations for Open System *Phasics*. As mentioned above, this is where science and religion amount to the same. Studying the unknown amounts to the study of the universe as a whole: the integral/open systems, *and* the way we form part of it/them.

Practically it means that by inverting all formulations of classical *Physics* we obtain the meta-thematic equations for (open system) 'universal field' *Phasics*. Albeit that at the same time *our involvement needs to be explicit part of the formulations/equations*. This has the consequence that all aspects of science based on the study of ('dead') inert objects can be used to understand life, and the way we experience (and interact with) it as subjects. This is the essence of Bringing Science to Life.

This concept, although simple, is fundamental and deserves more elaborate description on its own. Especially as "Bringing Science to Life" (by including life at the core of studying science) is essential for "Healing Health Care". This will be dealt with in future papers.

5 Live Science

The term "Inclusive Science" is already in use to formulate the need to *include* the role of the observer in the observation. As mentioned above, Quantum Theory explicitly links observer and observation in the concept of the collapse of the Vector of State. It can be summarised in the phrase "**Reality is a Realisation**". As mentioned before, our *individual* subjective experience (based on the way our body/mind functions) is the basis of the *collective* construct of consensus which we call science. As pointed out before, this process is so ill understood that it is both unreliable and unscientific. Science, at present, is a collective *myth*, of which the making offers personal and collective satisfaction, but it is itself in no way scientific. Neither in its ways, not in its outcome. Science can therefore not be used as gauge to evaluate 'Reality' and 'Truth'. *As long as 'things' are our explicit reference for 'thinking' we lack a reference system (and language) for describing 'no-thing'*. In other words, as long as we refer to Physics we cannot deal with Phasics (this is the basis off the problems in describing the Unified Field; which is simply the Open System dual of our description of a physical object.)

Inclusive Science is more than a logical formulation of the need to explicate our own involvement (and therewith the consequence of our understanding – and application – of creation: life, love, consciousness and health). It is also a pivotal formulation to come to an integrative understanding of the way we ourselves function. The lack of the study of the scientist (the person sciencing science) is the largest Blind Spot in Science. By understanding the scientist, we also have a basis for understanding health at all of its levels. (This is separately described in studies on Integral Health Care.) This again

offers a basis for personal health, social health, health of our Culture and Nature, in Body, Mind, Soul and Spirit. Again, this is fundamental and relevant material worthy of further study and description; which will however not be addressed within this cursory paper. Relevant though is the understanding that *Phasics* (the study of coherence of the transformation process of phase space) is also the basis of the study of *consciousness* and *life*. Phasics is the study of *phase information in the formation of phase*. It can be compared to the embryology of existence of reality. It addresses the basics of life, love, consciousness and health, and is thereby a foundation for "bringing science to life" and "healing health care", by integrating all forms of healing in one integral system (which in fact they already form). By using the understanding of all forms of healing, the blind spot of science (the scientist) can be understood and integrated into the formulations (and understanding) of science.

This is mentioned here to make explicit that the study of our main blind spot (the understanding of ourselves) has the greatest rewards to offer: to better understand our pivotal role as participants in creation. It is at that level that the entry gate of the Temple of Delphi bore the text "Know Thyself"; and that all questions of the mythical Sphinx amount to "*do you recognise yourself when you no longer recognise yourself?*". *The study of our own involvement, and being, is at present the largest blind spot in science.* However, in every study that was undertaken, our involvement was always implicit. By making that explicit all the existing findings of science can be 'inverted' into their dual: what was interpreted as a description of reality, was in fact a formulation of our realisation. By applying this understanding, the vast amount of knowledge on 'reality' can be used to offer explicit understanding of 'Realisation'. Our Blind Spot can then be realised to be at the core of our potential for creation (O#o, 2005b). Instead of outsiders, observers, scientists can then help regain our awareness of what it is to be creators and stewards on/of Earth. It turns active passive scientific voyeurism into a quest for the realisation of our conscious involvement in creation. (This is also the answer sought for the formulation of the Universal Field: its formulation must include our involvement.)

Conclusion

Science has been set up in order to resolve a social conflict. It emerged out of a culture ruled by a dogmatic theocracy operating a method of totalitarian control. As part of that approach a model of 'reality' (taken from a book) was imposed onto all people. It led to a quest for personal discovery and exploration, focusing on the unknown with the aim to obtain knowledge of it. Over the centuries this led to a similar situation as was seen in the past. Science simply took over the role of the priests as the church of 'reality and truth'. However, its models are without real meaning as they offer no understanding on the principles on which they are based. The mind of the scientist, which is the main instrument used in science, is neither calibrated nor well studied. It leads to the conclusion (together with other realisations) that *science is unscientific*. It is necessary for scientists to study science; which involves the study of sciencing: how scientific findings emerge, out of the collective process of conditioning consensus, and the subjective process of realisation. It is curious that science negates that objective

reality is based on subjective realisation. This is the main blind spot of science. However, when this is realised it can be studied. As a result it can also be seen that all finding about reality are in fact formulations on realisation. The understanding of closed system descriptions of objects is thereby directly usable for understanding open system.

Observation of Objects and Experiences of Subjects: these are each other's dual. This is where religion addresses the same issues as science. One addresses the Closed System, the other deals with the Open System. The languaging they use are dual and complement each other. By inverting their insights the sameness can be seen. It is precisely the bridging of these perspectives (insider versus outsider) which needs to be addressed in science. This was formulated as the need to Bring Science to Life. Our body is our best example for this: it operates as an interfacing instrument, in which information and matter are joined: equally important. This is also a prime reason for Bringing Science to Life, by studying the Blind Spot of Science. As long as science studied Dead Objects, medicine will have no suitable theories for dealing with Living Subjects. Integration between both is needed, as is seen in our bi-cameral mind, with the analytical (object oriented) left-brain complemented by a (process involved) right brain. In fact, our body is our best example of the difference between living beings and dead matter, and by studying the scientist, the scientists will soon come to understand Life, Love, Health and Consciousness; i.e. the relevance of our involvement in creation.

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