

The Spiritual Food Chain

A Human Ecological Perspective

on Our Immaterial Bond to Nature¹

by Dieter Steiner

Prof. em. for Quantitative Geography and Human Ecology, Federal Institute of
Technology (ETH), Zurich, Switzerland

*"Everybody needs beauty as well as bread,
places to play and pray in,
where Nature may heal and cheer
and give strength to body and soul alike."*
John Muir²

Mathematics vs. poetry, the precise vs. the mighty, the bird vs. the snake

When I retired from the ETH I held a farewell lecture entitled "Human Ecology as a Tightrope Walk between Mathematics and Poetry". What does this mean? It means that, if we want to concern ourselves with today's human ecological situation seriously, we cannot be content with just studying the material and energetic exchanges of humankind with the environment and suggest technical solutions for any problems arising. Instead we should be asking the more penetrating question of why it is that humans have started to destroy their own living basis and, conversely, how they can organize their own survival. If we pursue this line of inquiry we will find, however, that we cannot simply rely on a scientific rationale of the usual kind. This rationale can be symbolized by the term "mathematics", indicating the attempt to describe and explain the world as formally and precisely as possible in the form of propositions. A mathematical equation serves as an extreme example. As this does not suffice we need to consider in addition a complement attributable to the domain of the irrational (better: non-rational), uncertain and diffuse as this may be: phenomena which cannot be adequately described in the form of words, let alone mathematical formulae, but perhaps can be approximated in the form of narratives, of pictures, of music, etc. This I symbolize with the term "poetry".

Karl Schmid, a former professor of German language and literature and also principal of the ETH, used to speak in this context of the necessary combination of *das*

¹ Written version of a lecture given at the Human Ecology Section, Gothenburg University, Sweden, May 2000. Revised September 2008 (not checked for correct English).

² John Muir in *Yosemite*, 1912. The quote can be found in Chapter 16 („Hetch Hetchy Valley“) on page 126 of a downloadable version of the book.

Wissenschaftlich-Genau (the scientific-precise) and *das Seelisch-Sinnlich-Mächtige* (the spiritual-sensuous-mighty), *das Genau* (the precise) and *das Mächtige* (the mighty) for short.³ In his words: "The more strongly and exclusively our knowledge of nature becomes determined by scientific intellect and our relation to it by technical single-mindedness, the more powerfully a counter need for older ways of meeting and experiencing nature will develop in uncertain depths within ourselves."⁴

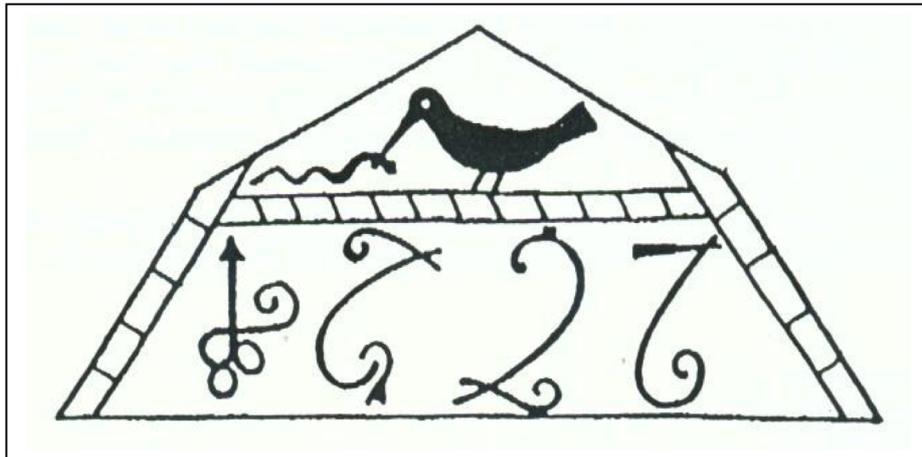


Figure 1: Gable on a house in Andeer (Canton of Grisons, Switzerland) with a bird catching a snake (from Högger 1993, 68)

The precise and the mighty symbolize two poles of the psychological existence of human beings. An awareness of this contrast is present in many different, if not all, cultures. It expresses itself in mythical stories and figures. I give one example, which I owe to Rudolf Högger, a Swiss development aid specialist. He has written a book entitled *Wasserschlange und Sonnenvogel* (Water Snake and Sun Bird)⁵. These two animals are mythical beings, often represented above the entrance to Hindu temples in Nepal, but occurring in other cultures as well. The snake lives on the ground and stands for a general force of life responsible for growth and development, but also for occasional destruction. The bird lives in the air, looking at the scenery underneath from a distance, acquiring an overview and trying to tame the snake and control its workings. For an example from Switzerland see Figure 1.

³ Karl Schmid 1975, 163.

⁴ Karl Schmid 1977, 152. Original wording in German: "Je stärker und ausschließlicher unsere Erkenntnis der Natur durch den wissenschaftlichen Intellekt und unser praktisches Verhältnis zu ihr durch technische Zielstrebigkeit bestimmt werden, um so mächtiger läßt sich in unberechenbarer Tiefe ein Gegenbedürfnis auf nach anderen, älteren Weisen, in denen ihr zu begegnen, in denen sie zu erfahren wäre."

⁵ Rudolf Högger 1993, 51 ff.

The "human ecological traffic light"

In a more prosaic way we may describe the situation with a figure representing the commonly distinguished three levels of human consciousness (see Figure 2). The precise can now be associated with the highest level, that of discursive consciousness – the adjective "discursive" indicating the ability to run systematically through a process of thinking and speaking and reaching a desired end –, and the mighty with the lowest level, that of the unconscious or deep consciousness. More metaphorically again and following Johann Heinrich Pestalozzi, the Swiss school pioneer and reformer, one may speak of head and heart.⁶ In more philosophical or religious language this can be likened to the distinction of mind and soul. These two terms though are not being used in a consistent way: sometimes the one or the other is meant to comprise all of the psychological phenomena of humans.

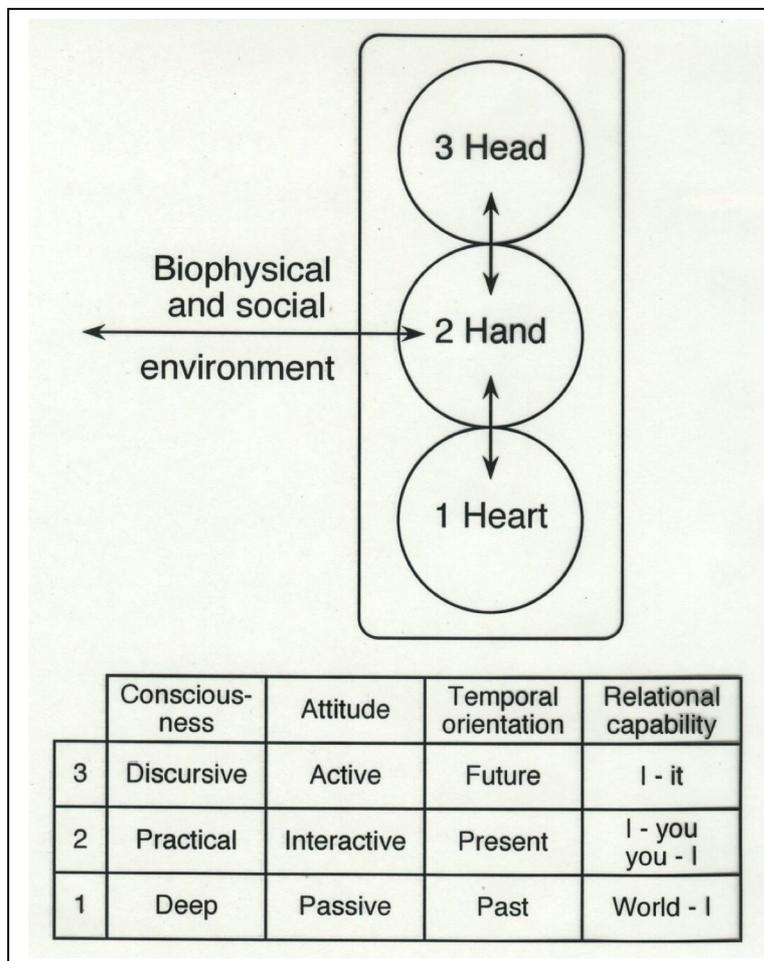


Figure 2: The three levels of consciousness with their associated attitudes, temporal orientations and relational capabilities. Jokingly we may call this representation, because of its appearance, the "human ecological traffic light".

⁶ Johann Heinrich Pestalozzi: 1746-1827.

However we may call the two poles of the human psyche, we can recognize that they represent two contrasting sources of inner orientation. With respect to deep consciousness the individual human is at the passive receiving end. Phenomena like dreams, intuitions and also feelings simply occur beyond his or her control. Messages manifest themselves so to speak. In contrast, discursive consciousness requires an active thinking effort, allowing the subject to achieve mental constructions. In Figure 2 we also see that there is an additional third and middle domain of consciousness, practical consciousness, or the "hand" in Pestalozzi's terms. It affords humans with the capability of interactive exchanges with the outer world, with the environment in social as well as ecological terms, taking on the form of perception-action-cycles. Perception comes about through the senses, of course, and action through what we generally may call motor organs. Practical consciousness not only provides a connection between the inner and the outer world, but it also sort of mediates between discursive and deep consciousness.

Evolutionary hierarchy: The principle and the biophysical food chain

The picture thus supplemented now shows a trinity of head, hand and heart, or of mind, body and soul, if we wish. I claim that this represents what I call an evolutionary hierarchy. This is a sequence of phenomena emerging consecutively during evolution with the following property: Each younger phenomenon appears to be differentiated out of the next older phenomenon, but at the same time to remain dependent on the latter's further existence as a basis for its own survival (see Figure 3).

In this sense one can imagine in the domains of consciousness of Figure 2 an evolutionary arrow from the bottom to the top. When I speak of the "spiritual food chain" I mean this: The special property distinguishing *Homo sapiens* from other living beings, the capability of abstract thinking and reasoning, is rooted in a more ancient psychological basis. Consequently, if we tend to rely on the rationality of our head exclusively, as is largely the case today, we sort of disengage ourselves from the evolutionary background and lose our footing. Of paramount importance is therefore our insight that we are related to this world not just in material, but also in immaterial ways. This is what I call the spiritual dimension. The term "food chain" indicates that we are in need of this connection as nourishment for our psychological welfare. Presently we act as if we could dispense with it. Our ways resemble the behavior of conquerors of extraterrestrial origin who plunder the earth and entertain the belief in other suitable planets waiting to be exploited once terrestrial resources are exhausted. In reality, of course, we are simply natives and Earth is our precious home.⁷

⁷ A picture provided by Klaus Michael Meyer-Abich, German philosopher of nature (1997, 11-12, 27).

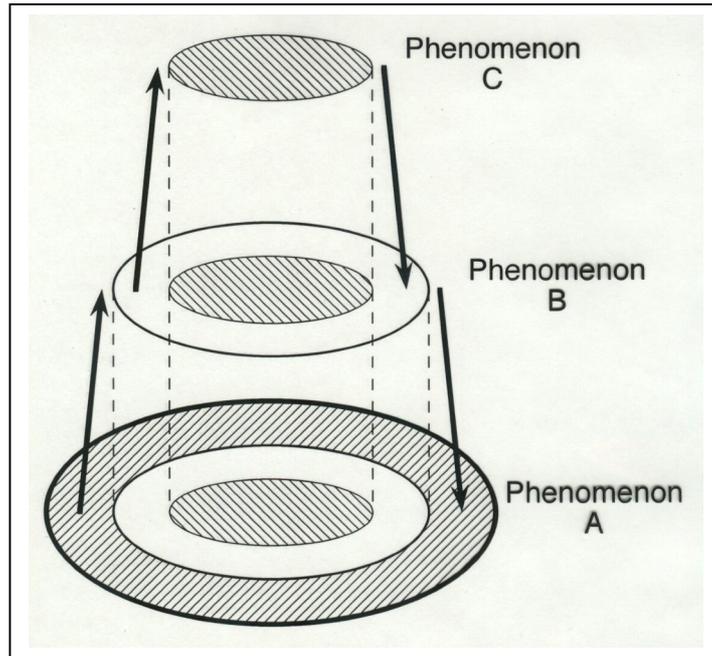


Figure 3: A general model of an evolutionary hierarchy. The younger phenomenon B has differentiated out of the older phenomenon A. There are interactions between A and B, but in the final analysis A has primacy over B in that the latter can exist only if the former continues to exist as well. The same applies to the relationship between B and C.

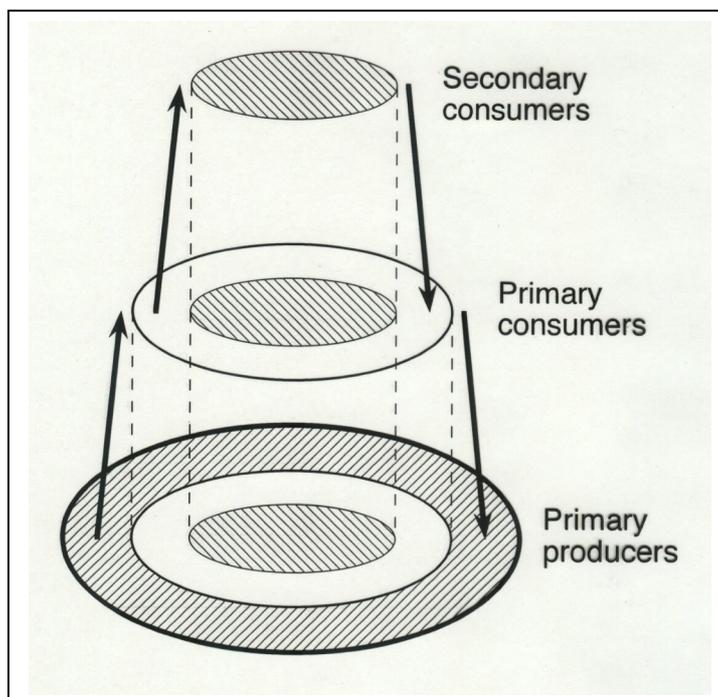


Figure 4: The biophysical food chain (simplified) as paradigmatic example for an evolutionary hierarchy.

The well-known material food chain is the paradigmatic example for the concept of evolutionary hierarchy (see Figure 4). Plants as so-called primary producers extract what they need for living from their anorganic environment: light, water, carbon dioxide and minerals. On their basis plant-eating animals as primary consumers can develop, and these in turn serve as prey for the meat-eating predators as secondary consumers. This is a highly simplified picture, but it suffices for our present argument, which tries to illustrate the fact that in an evolutionary sequence there is always a dialectic between younger and older levels in terms of freedom and dependency.

Evolutionary hierarchies in the human realm

To position our discussion about the spiritual food chain within a wider human ecological framework, consider Figure 5. The sequence nature - culture/society – person (or individual) again constitutes an evolutionary hierarchy. Human cultures and societies grew out of nature, providing their members the possibility of developing into self-responsible persons. Also human cultures and societies can, of course, only persist on the basis of a functioning nature, and persons can only remain persons as long as they remain embedded within cultures/societies. This very general picture suggests that by and large human evolution has progressed from a highly collectivized state associated with a we-type of consciousness to a highly individualized state associated with an I-type of consciousness.

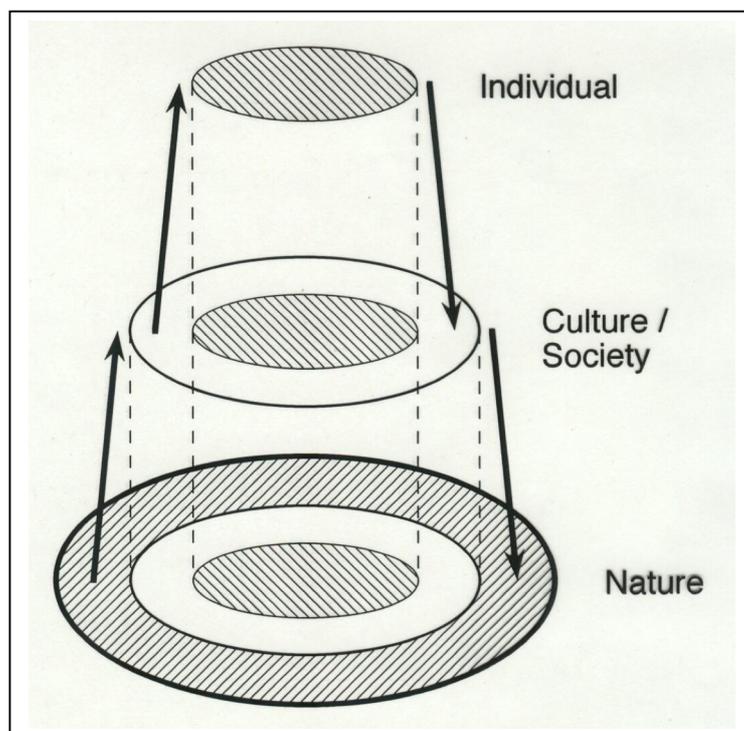
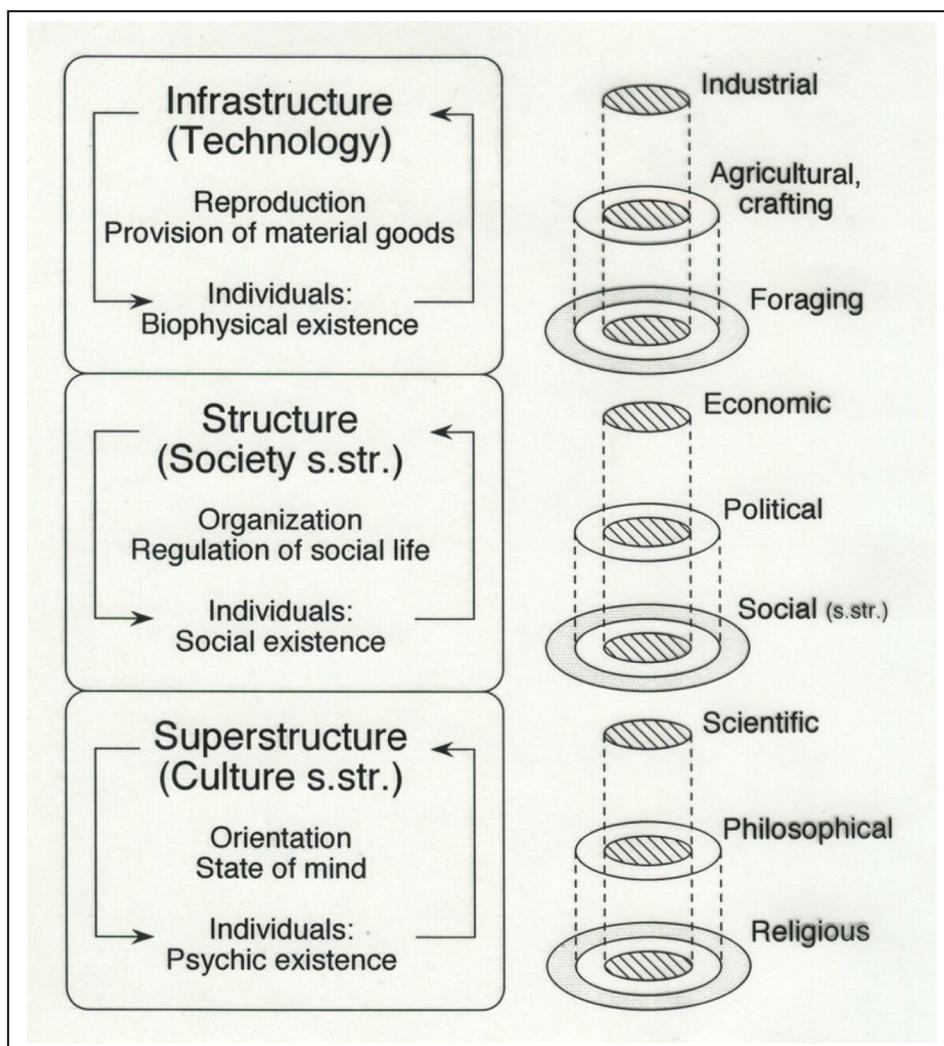


Figure 5: Nature and humankind as a three-systems hierarchy (after Fritz Reheis 1996, 41)

Let us now look at the two human domains of culture/society and person in more detail and consider their development through time. The former stands for the collective, the latter for the individual level of human existence. Actually, if the two terms culture and society are understood in a narrow sense, they represent two different aspects of this existence: *Culture* refers to the ways of human orientation and ensuing mindsets. *Society* in turn describes the modes of human organization, of living together. A third aspect must be added here, namely *technology*, whose task is to solve the problem of reproduction, i.e. of securing resources to ensure our livelihood in material terms. Each of the three aspects is associated with a corresponding individual or personal form of existence. This tripartition is shown in Figure 6. Note that culture, society and technology in the just described sense are also sometimes called superstructure, structure and infrastructure, resp.⁸



Figur 6: Partition of human society (society understood in the broader sense) in three sectors, each with its own evolutionary hierarchy

⁸ See for example Marvin Harris 1980, 51 ff.

In regard to *culture* the level of individuals can be described in terms of their state and content of consciousness. To this end we can utilize the three-level model of consciousness previously shown (Figure 2). At the collective level we are dealing with social systems that provide orientation and meaning, and we can here distinguish between religion, philosophy (including theology) and science (see Figure 6). This sequence represents again an evolutionary hierarchy. This means that philosophy should rely to some extent on a religious or spiritual foundation, and that science in turn should remain embedded within a philosophical framework. At present, this is clearly not the case. On the contrary, science dominates the scene completely with its claim to be the only valid source of orientation and knowledge. We have here a case of hierarchical inversion, meaning that the associated spiritual food chain has been turned upside down. Here lies one of the important causes for the enormous problems that trouble present-day humankind. We will explore this in some detail below.

In regard to *society* the individual level can be characterized by different kinds of action that are possible with given roles and identities. At the collective level one commonly again distinguishes three kinds of social systems, called social (understood in a narrow sense), political and economic (see Figure 6). In this respect let me just point out the following: Similar to the situation concerning the hierarchical sequence of religion, philosophy and science mentioned above we have an inversion in this case as well. We know, of course, that the economic system dominates the present scene completely, pervading all aspects of society as well as of individual lives. Instead of operating under the umbrella of a clear political guidance – so that we would have a political economy in the true sense of the word – its interests practically run the political system. Historically the economic system has differentiated out of the political system after the Middle Ages and, with the rise of capitalism, has become the absolutely leading force on this planet. The political system in turn should be rooted in a social foundation that represents some principles of archaic societies with their extended family and small group structures, in particular the pursuit of interests for the common good. Instead politics at present consists of power games pursuing the constant promotion of particular interests. Clearly this inverted hierarchy is the main cause of the terrible destruction taking place on earth today.

Finally, in the case of *technology* we have different kinds of work at the individual level and different modes of reproduction at the collective level, namely hunting/gathering, agriculture and industry (including services) (see Figure 6). In this presentation I will not pursue this aspect any further.

Types of relationships and worldviews

As we are interested here primarily in what we have called the spiritual food chain we will deal in the sequel with the domain of culture in some detail. As already mentioned, the sequence of religion, philosophy and science can be regarded as an evolutionary hierarchy in which, of course, religion is the oldest and science the youngest phenomenon. Here we can identify an additional phenomenon arising from the interaction between the consciousness of individuals and the collective systems of orientation. It refers to contents of consciousness that establish themselves as worldviews, that is as mindsets of a collective reach, which structure the way the world is seen. We must look at this for a moment. Talking about the three levels of consciousness previously I have indicated the properties of passivity, interactivity and activity associated with them. Proceeding from here I claim the following: In their deep consciousness human beings can establish a kind of participatory relationship to the world at large, in their practical consciousness a relationship in the sense of an encounter to the outside world around them, especially to other humans (the term "encounter" signifying the symmetry of a meeting of two beings at the same level), and in their discursive consciousness a kind of manipulative relationship to individual things in the environment, first in thought, later in action. In short we can characterize the three types of relationship by (compare with Figure 2)

1. world-I (the sequence indicating that I am passively at the receiving end),
2. you-I or (because we have symmetry here) I-you, and
3. I-it (the sequence now indicating that I am the active part).

Different worldviews will come about subject to which domain or domains of consciousness dominate as providers of information. Accordingly, we can also recognize an evolutionary sequence of worldviews:

1. Holistic: A given preexisting whole has primacy over its parts and influences their characteristics. Humans with a holistic worldview feel their dependence on natural or supernatural forces and a corresponding responsibility towards them.
2. Relational: The properties of parts become established by their mutual relationship. Humans with a relational worldview will respect other humans as well as other living beings for what they are, for their essence, their peculiarities.
3. Atomistic: The parts have primacy over the whole, which is not really a whole, but an epiphenomenon with characteristics derived from the properties of the parts. With such a worldview humans will tend to construct a world of their own from bottom up.

The three types of worldviews are depicted graphically in Figure 7. Also indicated is the association of the level of the parts with immediately observable facts and of the level of the whole with the phenomena of sense, meaning and values.

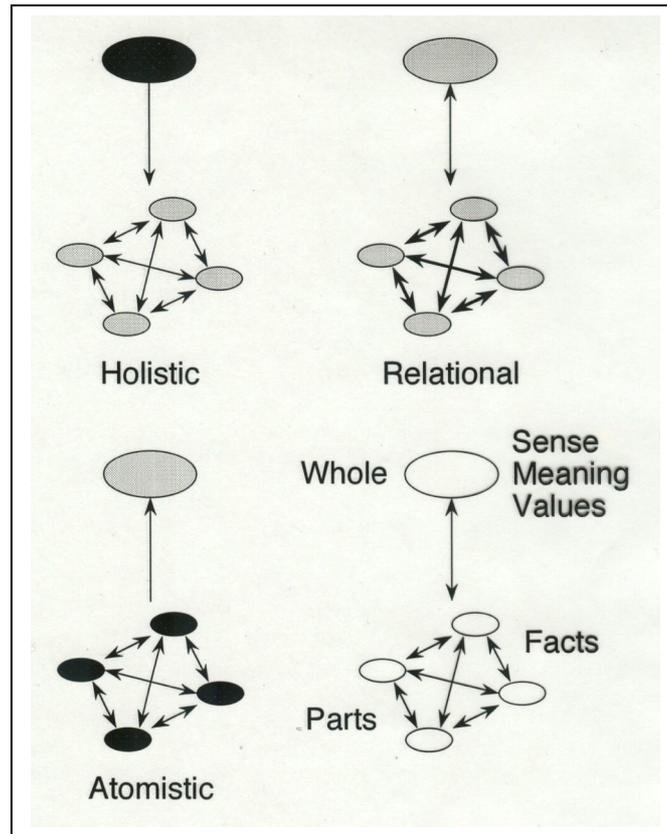


Figure 7: The three basic types of worldviews in terms of the relation between a whole and its parts. Note that the whole/parts-hierarchy may repeat itself over several distinct levels

The spiritual food chain as represented by religion, philosophy and science

Equipped with this background we will concern ourselves in what follows specifically with the evolutionary hierarchy of religion, philosophy and science. To repeat, the hierarchy means that philosophy grew out of religion and in turn science out of philosophy, and furthermore that science should remain embedded within philosophy and philosophy within religion to some extent. To stress this point let us depict this situation once again and separately as Figure 8. The present problem arises from the fact that these principles are being violated. Not only has science detached itself from its roots in philosophy and has philosophy lost its original connection to religion, but we also have a hierarchical inversion: Science has established itself as the dominant system of orientation. It dismisses philosophical thinking as purely speculative and religious feelings as purely irrational. In an awkward attempt to regain some status, both philosophy and religion (in the form of theology) try to become more "scientific". The destructive consequences are obvious everywhere. They will become less and eventually disappear only if we manage to reestablish the evolutionary thread in the form of the spiritual food chain, providing us with the necessary wisdom to live on this planet in peaceful and sustainable fashion. To make this issue

more intelligible and transparent I will now add some illustrative details by proceeding "backwards", that is from science over philosophy to religion.

Science

"Science has no idea where to go." This is an assertion uttered by the German theologian Dorothee Sölle some time ago.⁹ It expresses her conviction that science in its present form has not much in common with wisdom. Wisdom can be understood as a collaboration of thinking, feeling and acting in such a way that it serves the life not only of humans but of all other creatures as well. Not surprisingly Sölle's unease concerns primarily those natural and also medical sciences that are in the business of producing "useful" knowledge that can be technically implemented and commercially exploited. I do not deny the fact, of course, that this kind of development has brought us a lot of advantages making our lives easier. However, there is clear evidence that presently we have transgressed the optimum of this development and are now on a downhill track.

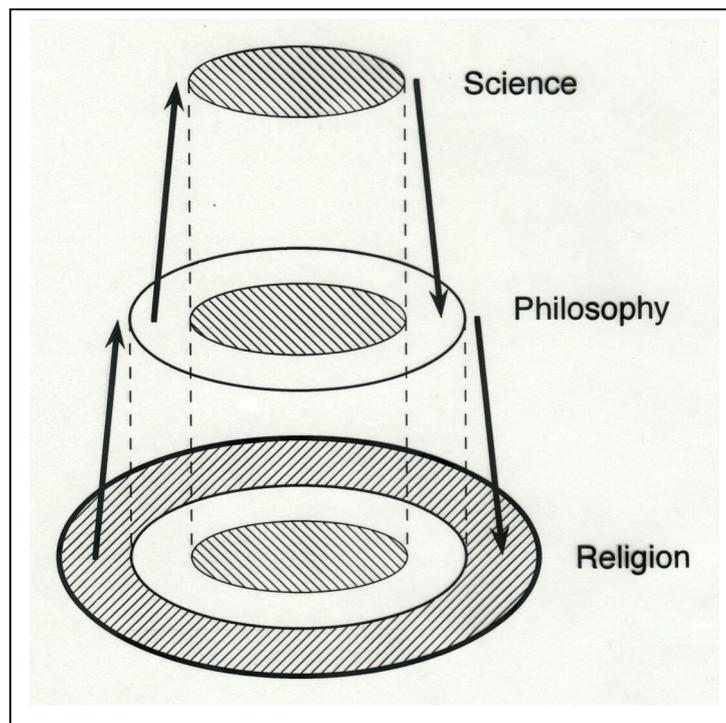


Figure 8: The three systems of human orientation as an evolutionary hierarchy. Its degree of integrity decides about the quality of the spiritual food chain at the collective level

Why is it that science, which is supposed to provide us with true knowledge about the world, is part of the problem we are facing today? Let us look at the answer Georg Picht, a German philosopher of religion, gave about 30 years ago. He portrays

⁹ During a philosophical discussion on Swiss television in 1997.

science as an undertaking that believes in the possibility of producing universally valid knowledge. In so doing it steps out of our earthly ecology and assumes a sort of divine status. This cannot go well. "There exists an insurmountable contradiction between the rule system that intends to make science logically consistent and the structure of an open ... ecosystem ... The basic problem of human ecology, therefore, is not the ecology of humans as animals, but the integration of their scientific language into the structure of their ecosystem," says Picht.¹⁰ In other words, the structures of scientific thinking do not match the structures of the real life spaces we depend upon. It is my view that the necessary integration can be achieved through a reactivation of the spiritual food chain only.

The conceitedness of the scientific intellect goes in parallel with a postulate made by theoreticians of science, namely to abstain strictly from emotions. "Science in the first instance calls for matter-of-factness and objectivity, freedom from emotions and prejudices," says Walter Theimer, a German philosopher of science.¹¹ Of course it is correct and important that scientists strive to avoid any kind of bias. However, to suppress emotions at the same time amounts to throwing out the baby with the bathwater. There exist a kind of emotions, called primary, which do not have the individual and subjective character of more superficial feelings, but a more general meaning instead. They have their origin in our deep consciousness, which, as stated earlier, offers the important possibility of a link to the world at large. This should become more lucid when we discuss religion below. At any rate it seems truly wrong if not utterly perverse, when the English physical chemist Peter W. Atkins, in a book in which he discusses the origin and the essence of the universe, asks us to avoid being overly impressed by its gigantic size. He says: "If our approach is generous enough, then we lose all awe, ... awe simply paralyzes our intellect."¹² In my opinion we cannot, in this day and age, afford to have a science devoid of respect and love for its object of study.

¹⁰ Georg Picht 1979, 66. Original wording in German: „Es besteht eine unüberbrückbare Antinomie zwischen dem Regelsystem, nach dem sich die Wissenschaft logische Konsistenz verschafft, und dem Gefüge eines offenen ... Ökosystems ... Das Grundproblem der Humanökologie ist deshalb nicht die Ökologie des Menschen als 'zoon', sondern die Integration seines 'logos' in das Gefüge seines Ökosystems.“

¹¹ Walter Theimer 1985, 9. Original wording in German: „Ihr [der Wissenschaft] erstes Gebot ist Sachlichkeit und Objektivität, Freiheit von Emotionen und Vorurteilen.“

¹² Peter W. Atkins 1984, 19. This assertion has been translated from the German version of Atkins' book back to English. I have not checked on the original wording. The German translation reads: "Ist die Betrachtungsweise grosszügig genug, verflüchtigt sich die Ehrfurcht, ... Ehrfurcht lähmt den Verstand."

Philosophy

The first step of a restoration of the spiritual food concerns science: It must remember its former origin in philosophy and thus accept a philosophical framework providing it with guidelines. What can we expect from such an underpinning? Well, the literal meaning of the term "philosophy" is, of course, love of wisdom. The German philosopher of nature Gernot Böhme reminds us of the fact that there is indeed an old European tradition according to which philosophy is knowledge by wisdom.¹³ This tradition of philosophy is very well described by the German philosopher Karl Jaspers in his book *Was ist Philosophie?* (What is Philosophy?): "Whereas scientific knowledge always concerns single objects and in this respect is never needed by everybody, philosophy deals with the whole of being, addresses humans as humans, and aims at a truth which, if it lights up, will move us much more deeply than any kind of scientific knowledge."¹⁴ As becomes apparent in a statement by Böhme, this being moved is of a particular importance: "Knowledge by wisdom is a kind of knowledge which does not allow a separation of the knowledge itself and the knowing person. The old philosophers ... were of the opinion that it is through knowledge that one becomes a good human being. ... I think that this unity of knowledge and person is a characteristic that distinguishes philosophy from science. Science is a business of knowledge production in which a participating individual does not have to be a knowing person. All that is required from him or her is that he or she is a contributor to the collective product of knowledge. It is not necessary that this person be a good human, it is thoroughly possible that he or she is a good physicist, but a bad human [!]."¹⁵

The question, however, is how far today's philosophy still has something to do with this old tradition. The original philosophy started to develop in Antiquity as an outgrowth of religion. Both tried to give answers to metaphysical questions, but whereas religion did this primarily on an intuitive-emotional basis, philosophy started

¹³ Gernot Böhme 1993, 80.

¹⁴ Karl Jaspers 1975, 33-34. Original wording in German: „Während wissenschaftliche Erkenntnisse auf je einzelne Gegenstände gehen, von denen zu wissen keineswegs für jedermann notwendig ist, handelt es sich in der Philosophie um das Ganze des Seins, das den Menschen als Menschen angeht, um Wahrheit, die, wo sie aufleuchtet, tiefer ergreift als jede wissenschaftliche Erkenntnis.“

¹⁵ Böhme 1993, 80. Original wording in German: „Weisheitswissen ist eine Form des Wissens, bei der das Wissen selbst und die Person nicht getrennt werden können. Die Meinung der alten Philosophen, ... war, dass man durch Wissen gut wird, eine guter Mensch; ... Diese Einheit von Wissen und Person, glaube ich, ist charakteristisch für die Besonderheit des Wissenstypus Philosophie im Unterschied zur Wissenschaft. Wissenschaft ist ein Unternehmen der Wissensproduktion, da braucht der einzelne überhaupt nicht ein Wissender zu sein, er muss ein Beiträger sein, jemand, der einen Beitrag leistet zum kollektiven Produkt des Wissens. Er braucht kein guter Mensch zu sein, er kann ein guter Physiker und ein schlechter Mensch sein.“

to stand out against religion by engaging the services of a speculative rational mind. Still it could not deny its origin: Like religion its questions and answers were motivated by awe about the existence of the world and of humankind therein. And like religion it believed that the calling of humans could be derived from metaphysical insights. Meanwhile the philosophy of modernity has detached itself from those roots completely. With its culture of argumentative reasoning it is now much closer to science. Its affinity to the latter is also documented by the fact that by and large it no longer aims at understanding the whole of the world – you remember the claim by Jaspers I mentioned before – and remains content with a multitude of concentrations on different specific fields of reflection. As a result, philosophy is today in a state of fragmentation which is almost as bad as the one in science. We live today, it is said, in a post-metaphysical era and we should forget the idea of being able to recognize any meaning in the world, which would also tell us what we are. According to the mainstream of modern philosophy we are totally confined to ourselves and can find orientation only in the domain of our own reason. This, however, is the one place where we cannot find wisdom. A lasting solution to the problem of missing orientation can be found only through a recalling of the origin of philosophy within religion.

Generally most philosophers hesitate to consider a foundation reaching back behind reason at all. Fortunately enough there are exceptions. One is the German philosopher Karl Albert who criticizes modern mainstream philosophy for resting solely on language and argumentative discourse. This, he says, does not satisfy some of our inner needs, our "spiritual feeling". It is for this reason that he pleads for a revival of what he calls "ontological experience", the moment of philosophy, which he regards as being absolutely essential. Herewith he clearly establishes a connection to mysticism, a fact which finds its expression in the titles of some of his books: *Mystik und Philosophie* (Mysticism and Philosophy), *Einführung in die philosophische Mystik* (Introduction to Philosophical Mysticism).¹⁶

Religion

Mystical experience, i.e., experiencing unity with the world or, in theistic interpretation, with some supreme, divine being, is precisely the starting point of all religions. As mystical experience affords a spiritual connection to inner or outer nature or both it has really an ecological meaning. And indeed the German philosopher of religion Hubertus Mynarek thinks "that the ecological aspect is a key element of any and every religion, that all genuine religions are basically or essentially ecological religions, most of them, however, without its followers realizing it."¹⁷ Yet most estab-

¹⁶ Karl Albert 1986 and 1996, resp.

¹⁷ Hubertus Mynarek 1986, 12. Original wording in German: „... dass der ökologische Aspekt ein Schlüsselement überhaupt jeder Religion ist, dass alle echten Religionen im

lished religions have a problem in that they tend to forget their own origin and thereby lose their liveliness. David Steindl-Rast, who is a Benedictine monk and a Zen Buddhist as well, describes how religious experiences cannot stay individual experiences, but call for exchange and anchoring within a community, so that a possibility is created to relive and understand those experiences in ritual form. This, however, means that a process of institutionalization is getting underway which, apart from its positive aspects, always carries the risk of dogmatization and ensuing rigidity. Religion then becomes a second hand business: It is procured, but not really experienced.¹⁸ The question then obviously is how such dead ends can be overcome in order to get back to the level of direct experience.

We may think that mysticism is something that used to work for archaic people but not for modern humans except perhaps for those who spend their lives meditating in monasteries. As Dorothee Sölle points out in her book *Mystik und Widerstand* (Mysticism and Resistance), this is not at all true. We all can still make mystical experiences of one sort or another. They do not necessarily depend on meditative practices, it is thoroughly possible that we get overwhelmed by experiences of nature.¹⁹ Abraham Maslow, known as a representative of humanistic psychology, calls them "peak experiences".²⁰ Obviously they hardly will be made every day, but even then there remains the possibility of existential experiences in everyday life, at least if we manage to carry out daily chores in a state of awareness providing us with a feeling of "here and now". To draw people's attention to this fact means to "democratize" mysticism, according to Sölle.²¹

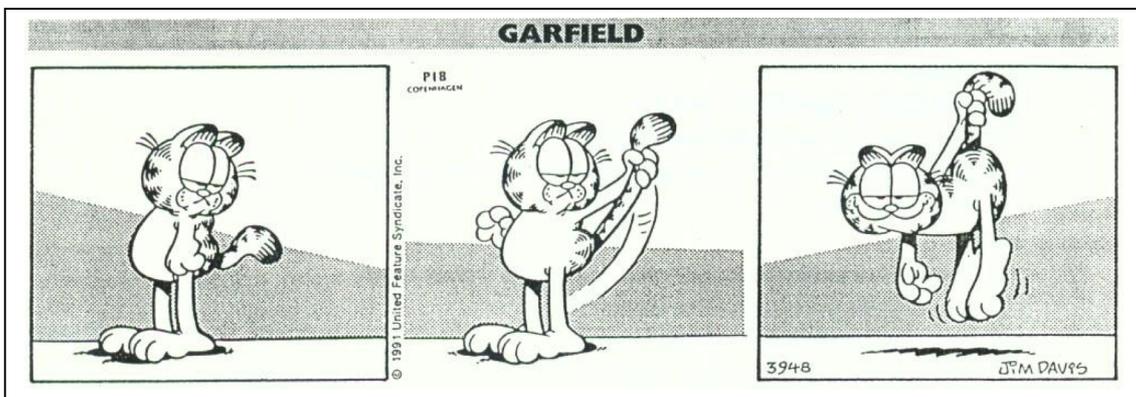


Figure 9: Garfield does the trick

Grunde oder in einer wesentlichen Hinsicht ökologische Religionen sind, die meisten allerdings, ohne es bewusst zu machen.“

¹⁸ David Steindl-Rast 1988, 177 ff.

¹⁹ Dorothee Sölle 1997, 25 ff.

²⁰ Abraham H. Maslow 1962, 67 ff.

²¹ Dorothee Sölle, 1997, 28.

To conclude, what is required is obviously a fundamental change of consciousness. How this can come about is another question. The situation we are in is comparable to that of the legendary Baron Munchhausen, who found himself mired in a swamp and eventually managed to pull himself out of it by his own tuft. A modernized version of this feat is presented by Garfield, who lifts himself up by grabbing his tail (Figure 9). Somehow we have to imitate one or the other. No easy task, considering that we have no tail and our hair may be too short ...

Literature cited

- Albert, Karl 1986: *Mystik und Philosophie* (Mysticism and Philosophy). Hans Richarz, Sankt Augustin.
- Albert, Karl 1996: *Einführung in die philosophische Mystik* (Introducing Philosophical Mysticism). Wissenschaftliche Buchgesellschaft, Darmstadt.
- Atkins, Peter W., 1984: *Schöpfung ohne Schöpfer. Was war vor dem Urknall?* (Creation without Creator. What Was Before the Big Bang?). Rowohlt, Reinbek b. Hamburg. (English original: *The Creation*. W.H. Freeman, Oxford).
- Böhme, Gernot 1992: "Perspektiven einer ökologisch orientierten Naturphilosophie" (Perspectives of an ecologically oriented philosophy of nature). In Hans Rudi Fischer, Arnold Retzer und Jochen Schweitzer (eds.): *Das Ende der grosse Entwürfe* (The End of the Big Designs), p. 72-84. Suhrkamp, Frankfurt a.M.
- Högger, Rudolf 1993: *Wasserschlange und Sonnenvogel. Die andere Seite der Entwicklungshilfe* (Water Snake and Sun Bird. The Other Side of Development Aid). Waldgut, Frauenfeld.
- Jaspers, Karl, 1975: *Was ist Philosophie? Ein Lesebuch* (What is Philosophy? A Reader). Buchclub Ex Libris, Zurich.
- Marvin, Harris 1980: *Cultural Materialism. The Struggle for a Science of Culture*. Random House (Vintage Books), New York.
- Maslow, Abraham H. 1962: *Toward a Psychology of Being*. Van Nostrand, Princeton, NJ.
- Meyer-Abich, Klaus Michael 1997: *Praktische Naturphilosophie. Erinnerung an einen vergessenen Traum* (Practical Philosophy of Nature. Remembering a Forgotten Dream). C.H. Beck, München.
- Muir, John 1912: *The Yosemite*. The Century Co., New York.
- Mynarek, Hubertus 1986: *Ökologische Religion. Ein neues Verständnis der Natur* (Ecological Religion. A New Understanding of Nature). Wilhelm Goldmann, Munich.
- Picht, Georg 1979: "Ist Humanökologie möglich?" (Is human ecology possible?) In Christine Eisenbart (ed.): *Humanökologie und Frieden* (Human Ecology and Peace), p. 14-123. Klett-Cotta, Stuttgart.
- Reheis, Fritz 1996: *Die Kreativität der Langsamkeit. Neuer Wohlstand durch Entschleunigung* (The Creativity of Slowness. New Prosperity by Deceleration). Wissenschaftliche Buchgesellschaft, Darmstadt.
- Schmid, Karl 1975: *Fortschritt und Dauer*. (Progress and Duration). Artemis, Zurich and Munich.

- Schmid, Karl 1977: *Das Genaue und das Mächtige* (The Precise and the Mighty). Artemis, Zurich and Munich.
- Sölle, Dorothee 1997: *Mystik und Widerstand. "Du stilles Geschrei"* (Mysticism and Resistance. "Thou silent shouting"). Hoffmann und Caqalömpe, Hamburg.
- Steindl-Rast, 1988: "Mystik als Grenze der Bewusstseinsentwicklung – Eine Betrachtung" (Mysticism as borderline of the evolution of consciousness – a reflection). In Stanislav Grof (ed.): *Die Chance der Menschheit. Bewusstseinsentwicklung – der Ausweg aus der globalen Krise*, p. 168-194. Kösel, Munich. (American original: Stanislav Grof and Marjorie L. Valier (eds.): *Human Survival and Consciousness Evolution*. State University of New York Press, Albany, NY).
- Theimer, Walter 1985: *Was ist Wissenschaft? Praktische Wissenschaftslehre* (What is Science? Practical Knowledge of Science). Francke, Tübingen (UTB 1352).