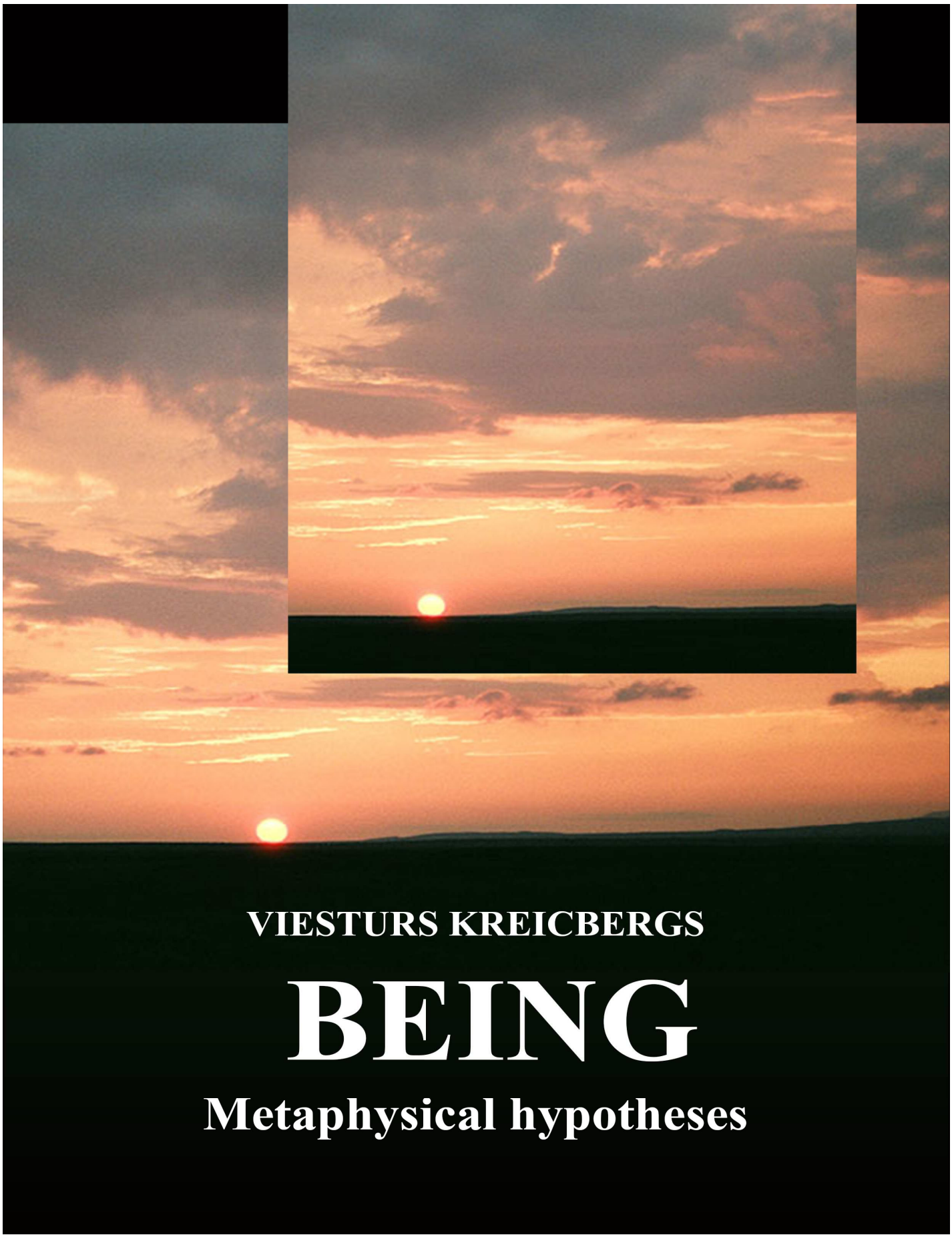

VIESTURS KREICBERGS

BEING

Metaphysical hypotheses

Viesturs Kreicbergs

BEING - Metaphysical hypotheses

Translated from Latvian by Valdis Bērziņš

About: Philosophy, Religion and Conscience

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Introduction

Being is everything that exists, including God

My inquiry into questions of the existence of God began more than twenty years ago. Back then I asked myself approximately the following question: "How can it be that, if God exists, we cannot say anything provable about Him to others?" This interest of mine and conviction in the existence of God developed as a result of a personal experience. People with religious faith refer to such experiences as revelations. It is possible that I, too, have experienced a revelation. Possibly – since it has left no lasting trace, only the memory of the feelings experienced at the time. And it was these feelings that gave rise to the question: ***"How can it be that, if He IS, I cannot say anything provable about Him to others?"*** Some answers to this question were formulated already twenty years ago. In the course of further inquiry, seeking to comprehend the existence of God, I have not had reason to revise them significantly.

In the course of these two decades, several people have helped me by stating the concepts more precisely, pointing out various inconsistencies and providing moral support. I am particularly indebted to Leonards Leikums, who never declined to read the great many versions of this work. I am also grateful to Gunārs Brāzma, Uldis Iļjins and my wife Kika.

1. THE MECHANIGS OF THE UNKNOWABLE WORLD

This chapter sets out a hypothesis regarding the **possible** contact between the unknowable worlds of God, spirits, etc., with the real world at the level of **elementary actions.** The probability governing the motion of elementary particles in atoms and molecules is described by quantum mechanics; accordingly, I will refer to the hypothesis of possible contact between living matter and the unknowable, divine world as the **"Mechanics of the unknowable world"**.

1.1. THE BASIC HYPOTHESIS

The basis of my world-view is formulated in the introduction to the work *In Search of Harmony* (1993. Jelgava: LLA, 96 p.): ***God and the material world are two endless and eternal inevitabilities, which exist independently and separately from one another, and intersect only briefly in every living thing.***

On the basis of this hypothesis I have developed a concept of the essential structure of ***being***.

The three components of being

Being consists of ***three*** essentially different parts – ***non-living matter***, ***God*** and ***life*** *(living things)*.

Non-living matter – is all energy and matter outside of life, from atoms and elementary particles to galaxies. Humans are continually learning about the existence of non-living matter, because its processes of change display regularity. Non-living matter is *"indifferent"* to the existence of life. It has no "*plans*" with regard to the existence of living things, such as promoting the development of life or destroying it.

God is not part of the material world **–** *God is* ***non-matter***, something that is not material.

I make the assumption that:

God is the ***absolute*** *antithesis of non-living matter*

Question: Did God create non-living matter?

I assume the answer is yes. As the ideal antithesis of His existence. I will frequently make use of this assumption in characterising God.

God is non-material, and precisely for this reason humans will never be able to comprehend the ultimate essence of God (We may speak of a reflection of God, rather than of why the reflection is precisely such as it is.) People have always been interested in questions relating to the role of God in the life of an individual and society.

For example:

- Do "God's laws" exist?
- Does there exist "God's plan" for human life?

There are questions, but there are not and cannot be any definitive answers. Various religions strive to answer these questions, but each does so somewhat differently.

These questions might be addressed from the position of God, as the absolute antithesis of non-living matter: if non-living matter is "indifferent" to the existence of life, then one must assume that God is not "indifferent" to it. Unfortunately, we cannot comprehend the essence of this "interest" on the part of God.

Living things. Life is a form of being at the boundary between non-living matter and the non-matter of God. Located at the boundary between matter and non-matter, life is constituted of two mutually incompatible parts: ***matter*** and ***non-matter***. Each living thing represents a unity of living matter and living non-matter.

- Living organisms are constituted of matter – *living matter*. The matter of living organisms occupies the same time and space as non-living matter. Even so, the atoms and molecules that make up living organisms do not belong to non-living matter; they are *to some degree independent* of it.
- The existence of the non-material part of living things – *living non-matter* – is an idea for which there is no proof. Proceeding from the principle of parity, one might think that living non-matter also has a dual affiliation, simultaneously constituting part of the non-matter of God and part of living things.

Living things ***are born, live*** *and* ***die*** (in contrast to non-living matter and the non-matter of God, which from the perspective of human existence may be regarded as eternal). When a living thing dies, the unity of its matter and non-matter comes to an end.

According to the basic hypothesis, *"God and the material world … intersect in every living thing"*.
A living thing consists of matter and non-matter. With regard to living matter, we know that it interacts with non-living matter (*for example*, living organisms breathe and consume water). It may be thought that living non-matter interacts with the non-matter of God.

Interaction with living things provides ***indirect*** *mutual contacts* between the non-matter of God and non-living matter

God interacts with the non-material part of living things. Non-living matter interacts with the living organism. The unity of matter and non-matter in a living thing is likewise ensured through mutual interaction. (see Diagram 1)

It proceeds from the above that: God's contact with non-living matter is indirect, the intermediaries in this contact being living things.

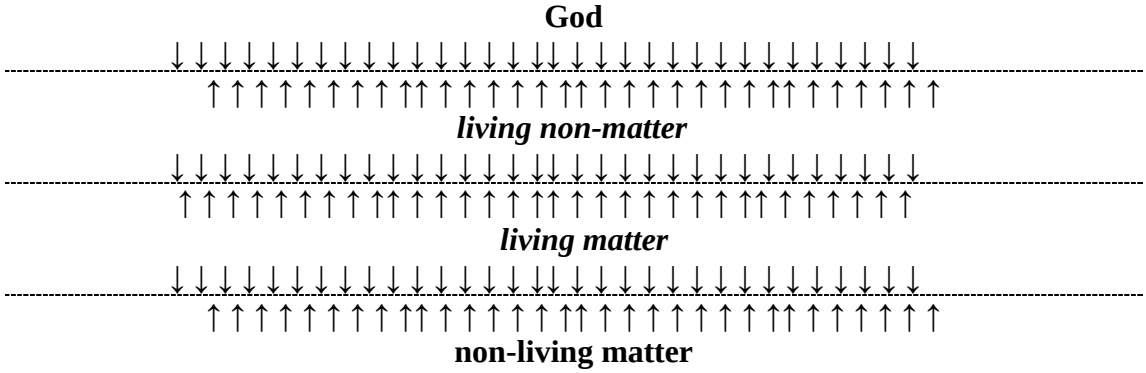

Diagram 1. The mutual interactions between the elements of being

We may conclude from this diagram that God's contact with non-living matter is indirect, living things representing intermediaries in this contact.

The individual, reality and irreality

Every living organism is individual and singular (*for example*, every living individual has their own genetic code).

In terms of its biological structure, every living thing is an ***individual***.

Every individual is simultaneously a dependent and independent part of being. Every individual comes into contact with the rest of being. An individual cannot conceive of all of being. An individual comes into contact with a specific part of *material* being and, possibly, with part of non-material being.

Considering being: we may speak of the material and non-material world *in general*, or of a *specific* material and non-material world, with which each separate individual comes into contact. In order to separate that which is in some way *specific from that which is in some way general,* it is necessary to separate the concepts of ***reality*** and ***irreality***.

Reality is the matter making up every individual and the matter with which the separate individual comes into contact in the course of its life. ***Irreality*** is the non-matter making up every individual and the non-matter with which the separate individual comes into contact in the course of its life.

(In my view, the concepts of reality and irreality are simpler to use and more comprehensible than the concepts of matter and non-matter.)

Interactions that ensure the existence of the separate individual

The separate individual is constituted of the individual's reality (matter) and irreality (non-matter).

Diagram 1 shows that living matter interacts with non-living matter, while living non-matter interacts with the non-matter of God. Using the terms *reality* and *irreality*, the same could be expressed as follows: the reality of a living individual interacts with non-living reality, while the irreality of a living individual interacts with the irreality of God.

The existence of the reality of every living individual is made possible by the realities of other living (or already dead) individuals. Such is the law of life: for something to live, something else must die. Stones will not feed us.

Rephrasing the words of the poet, one might say that "We are sustained by one another, and *also* by food …"

Applying the principle of parity, we may assume that the irreality of a separate living individual interacts with the irrealities of other living individuals.

The existence of the reality and irreality of a separate individual is made possible through interaction with *four* separate forms of being: *non-living matter, the living matter of other individuals, the non-matter of other living individuals and the non-matter of God* (see Diagram 2).

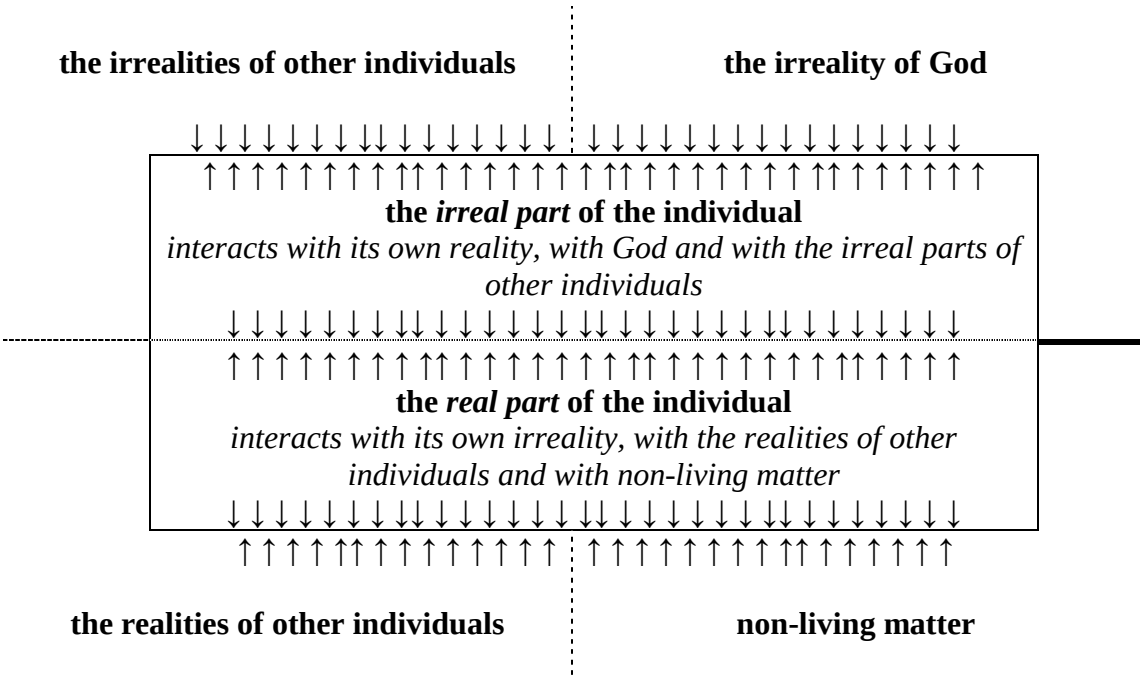

Diagram 2. The separate individual's contacts with the rest of being

1.2. INFORMATION

If there is something we can talk about with the conviction that we know it, then this is *reality*. There are two realities: *living* and *non-living* (currently, we belong to living reality). How does living reality differ from non-living reality? As already mentioned, living things *are born*, *multiply* and *die* (and possibly are *reborn*). The second most significant difference between living things and the non-living world is living organisms' ***capacity for generating and using information***. The birth of an individual and the continuation of existence (the creation of offspring) is *organised and directed* by ***information*** contained within the individual.

Real information

The capacity for generating and using information is the most important condition in reality that distinguishes a living individual from non-living reality.

Analogies

A cereal grain lies in a granary. The grain contains information about what future grains could be like. This information is contained in the grain's genes. The human hand sows the grain in the earth. After a while the grain's biological information goes to work and the life of the grain continues. The grain is transformed into the continuation of its expression – it sprouts, forms a shoot and then a stem, on which an ear and new grains develop.

Lying next to the grain is a stone. The stone has no biological information and is absolutely dependent on the conditions in which it occurs. The stone is "indifferent" to whether it is thrown into the ground together with the grain or remains in the store (the stone has not inherited anything and has nothing "of itself" to leave the next "generations" of stones).

What is information in reality?

In reality, the concept of information is inextricably linked to the concept of an *information-generating system* (IGS).

In reality, ***information*** is constituted of sets of codes generated by an *information-generating system* (IGS), which for a certain time interval *determine* the motion of matter and energy in accordance with the IGS codes.

What is an information system (IGS) in reality?

An ***information-generating system*** (IGS) is specifically ordered matter capable of generating information.

The information-generating system (IGS)

Within reality, in any information-generating system, as it generates information, *motion of matter* occurs, consuming *energy*.

Humanity is familiar with three cardinally different kinds of IGS: the human and animal ***nervous system, living cells*** and the ***computers*** created by people.

A brief characterisation of the separate information-generating systems:

- ***The nervous system*** (nerve tissue) is present in humans and animals. The higher animals and humans have two forms of nerve tissue: the *spinal cord* and the *central nervous system* (CNS). Nerve tissue consists of great numbers of nerve cells, which, by generating information, ensure the existence of the human or animal organism, as well as changing the conditions in which it lives. ***The nervous system constitutes the overall IGS of a living organism***.
- Almost all living organisms consist of ***cells***. Each individual cell generates information and uses this information in order to ensure the existence and reproduction of the cell, and to change conditions outside of itself. ***An IGS is present in every living cell, providing for its individual existence within the living organism***.
- ***Computers are humanly created IGS's***, which can process large volumes of information and display the results as a code or image information on a screen or in printed form. The primary basis for the operation of computers is humanly created software (information created by humans). ***Computers are IGS's dependent on humans***.

The information generated by an information-generating system brings about *motion of matter that is* ***dependent*** *on the corresponding information*, which further *comes to form part of the chains of cause and effect of real conditions*.

Thus, an IGS can produce information bringing about motion of matter that ***is independent of the motion of the rest of reality***. The corresponding information can determine the character and direction of motion within the IGS and outside of it.

Primary and secondary real information

The living information-generating system can produce information codes bringing about motion that is not dependent on the motion of the rest of reality. However, most of the set of information codes existing in reality becomes part of the chains of cause and effect of the motion of matter.

In terms of the *direct dependence* of living information on real conditions, it may be divided into ***primary*** and ***secondary*** information.

Primary *information* is one of the *primary causes* of changes in reality.

Primary information engenders new chains of cause and effect ***independent*** of the variability of the rest of reality. Primary information can ***only*** be part of an IGS. The motion brought about by information is ***not dependent*** on motion in the rest of reality. Primary information determines the character and direction of motion of matter both within the IGS and outside it.

Examples of primary information:

- The nervous system; for example, primary information provides the basis for every new conditioned reflex.
- In living cells, primary information brings about every mutation (mutation – a change in inherited characteristics).
- *Computers* ***do not have primary*** information. The causes of computer information are provided by humans through the installation of new software on computers.

The cause of ***secondary*** information is primary information. After coming into being, *secondary* information becomes an element of changes in reality.

The sets of codes and images of secondary information become integrated into the chains of cause and effect governing changes in matter. Secondary information constitutes part of an IGS and also exists outside of an information-generating system.

An example of the role of primary and secondary information in an event

He makes a decision: today I'm not going to school (*primary* information). He stays at home and does not arrive at school (*secondary* information). The teacher doesn't see him in class (*secondary* information). How will the teacher react to this fact? As usual: with indifference, perhaps with a cutting remark? No! This time it's different. The teacher is angry, and this anger has consequences (*primary* information). The teacher makes a decision: finally, I'm going to call his mother (*primary* information) ... This brought about a change in the relationships between a number of people. The phone call to his mother and brief information about the fact (*secondary* information). His mother is shocked, and for a moment stops thinking about her immediate duties at work (*primary* information). She considers whether to call home (in both cases this is *primary* information, because the decision she makes will have a different effect on the relationship between the mother and the son). She

calls (*secondary* information). He considers whether to pick up the phone (once again, this is *primary* information). He picks up the phone (*secondary* information). There follows an exchange of *secondary* information between mother and son, in which each statement is based on ***primary*** information …

Irreal information

Irreal information, like irreality in general, *is a hypothesis*, for which there is no possibility of proof.

Assumption:

Irreal information is information that exists in irreality.

The preceding discussion addressed real information, i.e., information that is a provable fact. There is the question of how much of this applies to information as such, i.e., concerning the essence of information.

In order to answer this question, I will repeat the definition given in this work of the concept of real information: *real information is the sets of codes generated by an information-generating system (IGS), which determine or alter the motion of matter and energy in reality, in accordance with the codes of the IGS*.

What part of that which has been formulated above may be applied to irreality, i.e., to irreal information?

Assumption:

Irreal information is the cause of changes in irreality in accordance with the conditions present in irreality

The chapter "The basic hypothesis" discusses two kinds of irreality: one irreality is the irreality of life or living things; the other is the rest of irreality, or God's irreality. If we assume that there are two kinds of irreality, then we may speak of two kinds of irreal information: *the irreal information of life* and *the irreal information of God*.

The irreal information of life

We know that the reality of every living organism produces real information. Does the irreality of living things also produce (irreal) information? It may be assumed (in accordance with the principle of parity) that *the living irrealities of individuals also* ***produce*** *information –* ***irreal information***.

From the above

An individual (a human being and every living thing) consists of living reality (matter) and living irreality (non-matter). Moreover, in life reality is located in the same time and space as non-living reality, while in life irreality touches God (see Diagram 2).

In seeking out the essential differences between living and non-living reality, we may conclude: *the reality of living things differs from non-living reality in its capacity for creation, which is one of the primary causes of change in living reality.*

Assumption:

The basis of existence of life is ***the capacity to create information***.

Living irreality, similar to living reality, also creates information – the irreal information of living things, which is the cause of change in living irreality.

If life represents the unity of reality and irreality, then this unity is possible because of the capacity for an exchange of information between the reality and irreality of life.

*The unity of living reality and irreality is made possible by the **exchange of information between** an individual's reality and irreality*

What is *irreal information*?

There is *practically* nothing I know or can say regarding what *irreal information* is! Maybe people's irreal information is the human soul? These are not codes or images, because codes and images are material. I can speak only of the ***reflection of irreal information*** in my reality.

If we assume that an individual's reality and irreality exchange information, then each individual's reality obtains a *reflection* of irreal information. And vice versa. Each individual's irreality obtains *a reflection* of the individual's real information.

People recognise reflections of irreal information in the reality of their psyche (consciousness). The *reflection of irreal information* constitutes our ***sensations*** and ***feelings***.

God's irreal information

A significant question is that of the existence of God's irreal information.

Assumption:

*One of the forms of existence of the being of God is information – **God is irreal information***

You could say: *God's relationship with the individual – this is the reflection of God's **irreal** information in the individual's **irreal** information, and thence in the individual's **real** information.*

If we proceed from the assertion that God is the absolute antithesis of non-living matter, then one may make the following *supposition* concerning God and irreal information.

Non-living matter in itself is ***not capable of creating*** real information, and ***does not need*** the information created by life. Information exchange between non-living and living matter does not occur. Life perceives non-living reality and reflects it as information. Moreover, people can create a reflection of their information in non-living matter (writing, drawing, etc.) and can alter non-living reality (e.g., building houses, roads, etc.). People have created artificial IGS's, namely computers, which can create and rework real information ***needed by people***.

God is *irreal information* reflected in the irreality of life, influencing its being. Through the irreality of life, God's reflection also influences the existence of the reality of life (see Diagram 2).

Is the information of the irreality of life reflected in the irreality of God and does it change the being of God?

Assumption:

The irreal information of life is reflected in God's irreality but cannot alter God's information, because ***God is all possible irreal information***.

If we assume that God is all possible irreal information, then such information *will have no causes or consequences* (*perhaps* the causes are also the consequences). Information that has no causes or consequences produces *unconditional change* – the conditions of change are absolutely free from all conditions.

God does not reproduce information; God is irreal information

Such an idea may provide a partial explanation for clairvoyance and prophecies.
(Change in the other kind of irreality, namely living irreality, is partly dependent on the reflections of living reality in living irreality.)

The conditions for the generation of living information

From the above

Only life can generate information. The reality of life produces real information, while its irreality produces irreal information.

Non-living matter (*non-living reality*) and God's non-matter (*God's irreality*) do not generate information.

There are two kinds of conditions for the generation of the information of life: *information generation* as a *property* of life and *conditions outside of life* which influence the generation of information.

The generation of information as a property of life.

- Living reality is arranged in such a way that it can itself produce the information it needs. Information is generated by every living cell and nerve system.
- Assumption: living irreality itself can also produce information.

The reality and irreality of living things mutually exchange information.

Conditions outside of life that influence the generation of information

The conditions for the generation of living information are also influenced by those forms of being that do not themselves generate information, namely non-living reality and God's irreality.

- Non-living reality cannot itself generate information, but ***non-living reality is reflected in life as information***, from the sufficiency or shortage of oxygen for each living thing to the laws and rules that people have learned concerning reality.
- God is information, and something of God's information may be reflected in the irreality of life, altering the conditions of generation of irreal information. The irreal information of life is reflected in the reality of life, and can also include a reflection of God's irreal information.

Thus, the generation of living information is determined by four kinds of conditions: ***living reality***, ***living irreality***, *the* ***reflection of non-living reality*** and the ***reflection of God's irreal information***.

Rational and irrational real information

From the above

A person may only discover, cognise and sense real information. Real information consists of information-generating systems (IGS's). There are three cardinally distinct kinds of IGS's: *living cells, the nervous system* and *computers*.

A computer is a part of non-living matter created by people, so it is not problematic to identify unequivocally its principles of operation, i.e., it is unequivocally possible to determine all the causes of information generation.

Living cells and nervous systems are part of life. Life represents the unity of living reality and living irreality. The unity of life is ensured by the reflection of real information in living irreality and the reflection of irreal information in living reality.

Assumption:

Humans cannot know unequivocally all of the real information generated by living cells and the nervous system, since it can also include a reflection of the information of irreality.

Thus, the information codes that constitute the real information of living things can have two different origins: information codes *generated by the IGS's of living cells or the nervous system* and real information codes whose cause is the *reflection of irreal information* in the real IGS's of living cells or the nervous system.

In analysing the origin of *real* information in living organisms, one can use the terms ***rational*** (the cause of its origin being reality) and ***irrational*** (the cause of its origin is the reflection of irreality in reality).

Within systems for generating living information real codes of *rational origin* or *irrational origin* can come about:

- The *real codes of **rational** origin* are generated by a real IGS of life. The origin of these codes can be discovered, and this knowledge can be expressed in the form of logical rules.
- The *real codes of **irrational** origin* are generated by the *reflection of the irrational information of life in the real IGS*. It is not possible to obtain knowledge based on regularities and knowledge concerning the origin of these codes.

From the above

All real information "born" in an IGS of life is the result of the interaction of living reality and irreality. Thus, the IGS's of humans and other living organisms cannot *generate* ***absolutely rational*** or ***absolutely irrational*** real information. Absolutely rational real information would be made up solely of codes having a rational origin, while absolutely irrational real information would consist only of codes of irrational origin.

(Absolutely rational real information is something familiar to humans: it is what the computer generates.)

Conclusion

The real information generated in the IGS's of life is ***relative***.

The information-generating systems (IGS's) of life generate real codes both of *rational* and *irrational origin*; consequently, the information is *relative*. Usually, one or other form of code predominates in the generation of information. Thus the concepts of *rational* and *irrational* information come into being.

- Predominant in the generation of ***rational information*** are real codes of *rational origin*. Expressions of rational information are logical and rule-based.
- Predominant in the generation of ***irrational information*** are real codes of *irrational origin*. In expressions of irrational information it is not possible to find logic or rules.

The origin of *rational information* is more or less comprehensible to humans. *For example*, it consists of logically demonstrable rules (an apple and its acceleration when falling) or provable facts (yesterday you only came home in the morning…), etc.

Irrational information.

What kind of information could it be that my irreality reflects in my reality? While change in matter is characterised by rules, and the functioning of a computer is dependent upon software, the reflection of irreality in reality must be sought in the kind of information that is not subject to rules and cannot be stored on a computer. Such information is generated by human sensations, feelings or intuition. (Just try to set them out in unequivocally comprehensible form in a virtual setting!) Thus, the more an emotional experience lacks logic or a basis in rules, the more it is possible to obtain an insight into reflections of the information of my irreality.

For example:

The character of my *irreal* information is more informed by intangible feelings of love, exulted faith or the deep sense of loss of a loved one than by uncontrollable emotion at winning the jackpot or hysterical grief at the defeat of one's favourite football team. Experiences of uncontrollable emotion or hysterical sorrow reflect the information of my irreality; however, such experiences are more readily predictable and thus more logical. (Expressions of uncontrollable emotion, in addition to the reflection of irreal information, also contain a lot of rational information.)

1.3. THE UNITY OF LIVING REALITY AND IRREALITY

In seeking to approach an understanding of the possible contact between living reality and its living irreality, we should start with the significant differences between the existence of ***living*** *and* ***non-living*** *reality. One difference I have already examined: living reality produces information; non-living reality is itself incapable of producing information. The ability to produce information is not the only condition distinguishing living from non-living reality. In contrast to non-living reality, living reality is to some degree* ***independent and organised****, and has its own* ***individual time****.*

Independent and dependent worlds

Each real world (living individual or non-living object) is, to a greater or lesser degree, dependent on the conditions in which it exists.

With regard to *the objects of non-living reality*, it may be asserted that:

Non-living matter, i.e., matter outside of life, is ***absolutely dependent*** on the real conditions in which it exists.

People have discovered this absolute dependence and expressed it in laws and regularities.

The motion of all non-living reality and other changes occur, within the limits of error, in accordance with rules that people have identified.

(Many of these rules are relative and are described in terms of probability, but this does not mean that non-living matter is not absolutely dependent on circumstances.)

With regard to living reality things are not so simple. Every living *thing* is a *relatively independent world*, i.e., living things are simultaneously dependent and independent of the conditions of their existence.

Proposition:

A living organism (living reality) is ***a world relatively independent*** of the real conditions of existence.

Every living organism, every living cell is ***simultaneously*** *independent* of and *dependent* on the conditions of its existence.

Simultaneous dependence and independence is expressed by the concept ***relative*** – *relatively dependent* or *relatively independent.*

The dependence of life

Every living individual is dependent on non-living reality, *for example* on the air that it breathes, the water that it uses, etc. Every living individual subsists on others and thus is dependent on them. Life is dependent on the conditions in which it lives, but this dependence is ***not absolute***. *For example*, a person can choose what kind of water to drink – clean or dirty, what kind of air to breathe – fresh or stale, whom to be friends with, and which person to break off a relationship with.

The independence of life

Humans (and other living things) have a degree of independence from the conditions of their existence. The basis of this independence is the information produced by humans (and other living things).

- The information produced by living things is one of the main causes of the motion of matter and energy ***in the living organism***.
- The information produced by living things is one of the causes of the motion of matter and energy ***outside of*** *the living organism*.

Living reality (the individual) itself organises motion within its organism and strives to realise it beyond this.

A generally accepted idea.

The original cause of the motion of non-living reality is the "Big Bang", after which all further motion of matter is determined by logical chains of cause and effect. After the "Big Bang" non-living reality no longer influences the changes to its own motion.

At the biological level a sign of the independence of every cell and of the living organism as a whole is a *plan of ideal existence* (*for example*, the information contained in DNA molecules). The individual's plan of ideal existence is inherited from the parents and handed down to the descendants (sometimes with minor

alterations or mutations). The individual strives to realise their plan of existence, but this is only partially possible. An individual can exist only if it is in contact with the rest of the living and non-living world. Non-living reality does not have its own ideal plan, whereas each living individual has its own ideal plan, which is independent of the ideal plans of other individuals. Every individual's striving to realise its plan brings about mutual *competition*, *cooperation* or *confrontation*.

Among living things there exists mutual interest, whereas non-living reality is not interested in the existence of living things!

An individual's existence is partially determined by the individual and partly by the conditions in which it exists.

People often refer to their condition of dependence or independence by the concepts "free" and "unfree". The concepts of freedom/unfreedom (oppression) are usually employed in the context of social relationships.

People strive for freedom. However, a person *cannot* obtain ***absolute*** *freedom* from other people and society. Even when a person is "floating in the clouds", they have to provide for their biological existence. At the same time a person will *never be* ***absolutely*** *dependent* on circumstances.

For example.

A person can be exposed to seemingly endless subjugation and oppression, but there will always remain something that cannot be absolutely subjugated, be it simply the individual self-regulation of the organism. Only by destroying a person can their body be made absolutely dependent on circumstances.

What is the possible *independence* or *dependence* of living *irreality* on the rest of being?

Assumption.

Since life represents a unity of reality and irreality, living irreality is both dependent on and independent of something.

The irreality of living things is relatively dependent on the conditions of its existence, for example on its unity with living reality.

Of course, once the unity of living reality and irreality ceases, the dependence of living irreality on circumstances also ceases.

And how is it with God?

In this work God is interpreted as the absolute antithesis of non-living reality.

This contrast forms the basis for the following idea:

God is absolutely free and independent of any forms of being

At the same time, in contrast to non-living matter, God could have some kind of incomprehensible "interest" in the existence of life. God has created life (or has participated in the creation of life on the "basis" of non-living matter). When life goes out of existence, its real part becomes part of non-living reality, while its irreal part, presumably, joins God.

Ordered and unordered reality

Changes in the conditions of reality may be characterised as ***ordered*** *(with an increase in order) or* ***unordered*** *(with an increase in chaos).*

From the perspective of the exact sciences, order in a real world can be characterised using the concept of entropy. Entropy indicates the thermodynamic state of a system. An *increase* in entropy corresponds to an increase in *chaos* within this system, while a *decrease* in entropy indicates an increase in *order* in this system.

Non-living matter shows a natural increase in entropy, i.e., chaos in non-living reality increases. The exception is when a human or other living thing orders some part of the non-living world, creating a nest, a machine, an apparatus, structures, computers, etc. In order to do this, energy must be expended.

Living organisms are open systems, i.e., as they function there is a continuous exchange of matter and energy with the environment. The biological processes of life involve a reduction in the internal ***entropy*** of cells, compensated by an increase in entropy in the environment. Living organisms are self-organising systems that bring about a local reduction in entropy in the chaotic environment of non-living reality through the biological ordering of their organism.

People use the concepts "ordered"/"unordered" in a much broader sense. The order/disorder of conditions can characterise the possibilities of existence of humans and other living things in the particular environment.

Ordered conditions provide favourable conditions for the existence and development of living things. ***Unordered conditions*** (chaotic conditions) provide unfavourable conditions for the existence and development of living things.

For example, aridity makes the existence of a species of animals practically impossible (an unordered environment), whereas in an environment with a high moisture content it will multiply rapidly (the environment is ordered). *Maximally unordered* conditions are possible, in which a human or other living thing will die, i.e., become part of the non-living world.

Are ideally ordered conditions for human existence possible in reality?

Biologically *ideally* ordered conditions for human existence are currently not known. Even when living in ideal conditions (consuming healthy food, in a warm environment, with optimal stress and distress, and with maximum comfort), during the course of a person's life they will use only a small part of their biological potential.

At the level of psychic functions the human being has the possibility of approaching the *sense of ideal order*. In realising their desires, people often use the term *ideal* – ideals were what I sought. Fulfilling the ideals of their desires, a human feels *ordered*. It is important to connect this sense of order with the concept of dependence/independence. Simultaneously with the *sense of ideal order*, in fulfilling their ideals, in obtaining something, reaching a place or meeting someone, a person becomes *dependent* on a thing, a place or another person.

Also possible is a different sense of *ideal order*, where the cause of order is not something real but something ideal, for example, love in general, rather than with regard to a specific person, or belief in something inexpressible in words. In my view, through this sense of ideal order, we approach God.

Assumption:

God is an ideally ordered world.

Sometimes a person can approach God through their feelings. Possibly, in order achieve this, a person must pass through a sense of complete chaos within themselves.

Energy

One of the measures characterising the motion of both living and non-living reality is energy.

The material world is united in time and space, and the continuous motion of its separate parts may be characterised in terms of the *energy* consumed or released. In addition, life produces (generates) *information*.

In order for life to ensure its existence, i.e., to order itself, it consumes *energy*. In order to live, every living organism receives energy from outside. *All generation of information* involves the *motion of matter* and the *consumption of energy*.

What is generally known:

Energy in reality – a quantitative measure of the motion and interaction of material bodies and systems that is common to all forms of matter. In reality every motion of matter can be definitely related to others, and this common measure is the balance of energy absorption or liberation.

The amount of energy released or absorbed in one motion can be definitely related to the amount of energy released or absorbed in a different motion (taking into account losses). A large number of measurement systems have been created to allow one kind of motion to be definitely related to others.

For example, one of the forms of definitely relating motion is incorporated into the *closed systems* of the Law of the conservation of energy, which states that the total amount of energy in a system does not change, regardless of the processes occurring in the system. This means that energy is not lost or created; it only changes from one form of energy into another or moves from one body to another.

In non-living reality all energy is quantifiable. In non-living reality it is possible to prove that the amount of energy absorbed or released in any motion of matter can be definitely related to an *energy quantum.* This law can be proven, because in non-living reality it is possible to create closed systems, i.e., systems not affected by external forces.

An *energy quantum* is the smallest possible amount of energy characterising the interaction of physical systems.

With regard to *living reality* (living organisms) the laws of unequivocal quantisation cannot be proven. A living organism and each individual cell is an open system that, in order to live, exchanges matter and energy with the environment (if a cell is turned into a closed system it will die). Thus, we cannot ascertain whether the metabolism of living organisms involves the *loss* or *gain* of some kind of energy.

It is possible to use energy to relate various kinds of motion, because energy is consumed or released "in batches". In each real system there is some minimum quantity of energy that can be released or absorbed – the dimension or quantum of action. The dimensions of the quantum are described by the *Planck* Constant.

Energy changes in reality may be *quantised*, i.e., the amount of energy absorbed or released during the *time* of any motion can be definitely related to the amount of energy absorbed or released during the *time* of any other motion.

Universal and individual reckoning of time

Energy changes in reality are connected with the concept of ***time***.

Hypothesis.

The reality and irreality of life is located in *different spaces*, but they ***exist within the same time***.

Time and *space* connect living and non-living reality. Every living thing is material and is located in a unified space and time with non-living matter and other living organisms.

The basic proposition of this work is that *life is a unity of reality and irreality*. The reality and irreality of life are simultaneously united and separate.

- *The reality and irreality of life are **separated in space***. The reality and irreality of life cannot be located in the same space, because matter and non-matter are separate in space.
- *The reality and irreality of life are **united in time***. The reality and irreality of life exist in one and the same time. The common time ensures the unity of reality and irreality. When a living cell (or a whole organism) dies, the *common time* of the reality and irreality of life *ceases to exist*.

What is generally known

Time – concretises motion and development, characterising the duration of existence of things and processes, and their sequence of change. Time concretises changes. In reality, time is the main element of measurement in systems used to arrange events in sequence.

In order to permit the comparison of all changes occurring in reality, people have *in reality* ***adopted*** a unified – *universal* – system of reckoning time.

The ***universal*** system of reckoning time is based on the second, minute, hour, day, etc. People have created this system based on the Earth's rotation about its axis as well as its motion around the Sun. Nowadays the basis for reckoning time is Coordinated Universal Time (UTC), which is based on transitions in the ground states of the caesium (Cs) atom.

The universal system of time reckoning is applied both to non-living matter and to every living thing.

Assuming that the reality and irreality of life exist within a common time, the question arises: in what time? Or rather, how to measure this time? While change in living reality can be described in terms of the universal system of time reckoning, this cannot be applied to the irreality of life. Universal time reckoning is based on processes in the space of matter, but the irreality of life lies outside of this space.

Assumption

*The common time reckoning of living reality and irreality should be constituted of **individual processes** in the reality of the particular living organism and the reflection of these in the irreal part.* People have always talked of ***individual time*** (the individual perception of time). Sometimes time can "drag on", and sometimes it

"flies by". The "dragging on" of time arises from the absence of events in a person's life. Conversely, time "flies" when one event follows another.
Thus, every living thing can reckon time *individually*.

Individual reckoning of time is performed by every living thing. It is based on motion, the cause of which is information generated by life. In life, the next individual moment in time appears along with the emergence of the next unit of information. And all new information brings about changes in the living organism. (We may recall that the generation of information consumes energy.)

Apart from this, *individual time reckoning* is performed by every living cell – a world to some degree independent from the rest of the organism.

The unity of the reality and irreality of life is ensured by the mutual exchange of information.

- The reality of life not only generates information but also reflects it in the irreality of life.
- And vice versa. The information of the irreality of life is reflected in the reality of life.

The mutual exchange of information ensures common and *individual* time reckoning in the reality and irreality of life.
Every unit of an organism that produces information possesses individual time:

- every cell of an organism has its own individual time;
- every organ (the heart, liver, bone tissue) also has its own individual time, that of the organ, constituted of the general functions of that organ;
- the whole organism has the common individual time of that organism, which comes about through the coordination of the separate organs.

(Computer-generated information is dependent on *universal* time reckoning, since in a computer it is the computer's generator frequency that provides universal, unchangeable time reckoning.)

Non-quantisable and quantisable irreal energy

Advanced in this subsection is a hypothesis regarding the mechanism that ensures the reflection of the reality of life in the irreality of life. And vice versa: the reflection of the irreality of life in the reality of life.

Hypothesis

Information exchange between the reality and irreality of life is carried out by ***non-quantisable*** *energy of real origin* and ***quantisable*** *energy of irreal origin*.

From the above

An energy quantum is the smallest possible amount of energy in reality, which characterises the interaction of physical systems. It has been proven that in non-living reality all of the energy gained or expended in the motion of matter is quantisable (i.e., it can definitely be related to the smallest possible quantity of energy – the energy quantum). In the metabolism of living reality no such relationship can be proven, since living things are open systems.

Information generation in reality is the *motion of matter*, characterised by energy expended *over time*. In producing information, the living organism and cells use *individual* time. In the reality of life individual time comes about along with the motion of matter and energy in cells (metabolism), which is independent of the rest of reality. The cause of metabolism is the internal biological information of every cell.

The biological information of every separate cell acts *in a similar way* but *not identically* to the biological information of other cells.

Assumption.

Although the cells of an organism have an identical plan for existence and development, the realisation of this plan – metabolism – is conducted individually by each cell. The motion of matter and energy is similar in all the cells, but the "rhythm" of this motion differs. *These differences in rhythm are so minute that they cannot be* ***unequivocally*** *related to the Planck Constant* – the smallest possible dimension of action. In reality, for cells to exchange matter and energy it is necessary for this rhythm to be smoothed out; accordingly, they release amounts of energy that cannot be quantised – *non-quantisable energy*. Non-quantisable energy *has a real origin* but cannot be part of reality, because in reality all energy is quantisable. Energy of non-quantisable origin enters the *irreality* of life (or non-matter), bringing with it information about events in the reality of life.

Non-quantisable energy is the amount of energy released in living reality, which is not quantisable and so is reflected in the individual's irreality and becomes part of irreal information.

Assumption.

Processes in the irreality of life are reflected in the reality of life. This is indicated by human feelings, for example. (A computer cannot produce feelings.) In order for such reflection to be possible, the irreality of life has to release amounts of energy that are quantisable – *quantisable energy of irreal origin*. (In irreality only non-quantisable energy can exist.)

Quantisable energy of irreal origin is a quantisable amount of energy released in living irreality that is reflected in the individual's real IGS (the DNA of cells or the nervous system), influencing its activity.

Quantisable energy of irreal origin in the living organism reflects the "attitude" of irreality towards the processes occurring in the reality of life. In the case of humans, irreal energy is the cause of pain, sensations and feelings. The prophesies of clairvoyants, visions and the revelation of God likewise have their basis in quantisable energy of irreal origin.

An analogy *regarding the simultaneously independent and dependent existence of a cell in the organism*

There was once a union of city states (*living organism*). It consisted of several tens (*potentially billions*) of independent city states (*cells*). Each city state was enclosed within a wall (*cell membrane*). Travellers entered and left the city via gates in the wall or by handing over their goods (*signals*) in accordance with the principle – I handed it over on this side and it was received on the other side.

All of the cities had a similar structure behind the town wall. At the centre was the town council – creator of the town laws and keeper of the book of laws (*cell nucleus*). Apart from this the cities had a great variety of companies, such as companies producing energy (*mitochondria*), the houses of the citizens, etc. Particular elements of the city structure (the council, town hall, production companies) each had

their own internal boundary, a wall, beyond which, in addition to the town laws, internal order prevailed.

In the union of city states each state had a degree of independence, permitting it to establish the starting point for its own time reckoning. There was an agreement, under which the hour was the basis of time reckoning, and there were twenty-four of these in the diurnal cycle. However, no common time when the day began was established. Thus, in one city state the beginning of the hour might differ by half an hour compared with others…This was not a problem for the residents of the city states. Problems did arise for travellers (*compounds performing metabolism between cells*).

The city states were linked by roads along which travellers moved (*metabolic organisers*), along with goods (*metabolic compounds*) and money (*metabolic energy*). Separate laws and a separate time reckoning were in force on these roads.

A traveller leaving a city state had to accept the laws and time reckoning in force on the roads. And when entering a city, they had to adapt to the laws and time reckoning of that city.

The rulers and legislators of the cities did not like the travellers. The travellers would tell the city residents what was happening outside the city walls – about the laws in force in other cities. This information often contradicted the laws according to which the city lived and brought about unrest in the cities. However, the city could not exist without the travellers, because the city needed goods and raw materials for its existence...

2. THE MECHANIGS OF BRAIN ACTIVITY

Living reality differs from non-living reality in its capacity for generating, relocating and storing information. Information, such as genetic information, provides the basis for the existence of life. Information is generated in reality by information-generating systems (IGS's). People are familiar with three kinds of information systems, differing in terms of their principles of operation: living cells, the nervous system of people and animals, and the computers created by people.

Of the three kinds of IGS's, the one most important for human existence is the brain. Currently, research on the brain in particular is rapidly developing, and surprising the world with a great many new discoveries. Not being a neurologist, I will nevertheless endeavour to express ideas concerning the principles of cerebral activity. The work presents a hypothesis concerning humans' limited possibilities of discovering the world, if we assume that the brain, in addition to a real part, also has an irreal part.

2.1. THE CONDITIONS OF THE FUNCTIONING OF AN INFORMATION-GENERATING SYSTEM

Information is produced (generated) by ***information-generating systems*** (IGS's). Humans are familiar with three different IGS's: the ***nervous system***, ***living cells*** and ***computers.*** Although these systems differ cardinally, nevertheless there are many resemblances in terms of their structure and conditions of operation. At least *four* conditions can be distinguished that are similar for all three information-generating systems.

First. Every IGS consists of ***basic structural elements***, which can link up into ***specifically ordered systems***.

- In the case of computers, the *basic structural elements* are **transistors**, from which **processors** are built up, constituting *specifically ordered systems*.
- In the IGS's of living cells the *basic structural elements for information* are **nucleotides**, which form **DNA molecules** and **RNA molecules**, constituting *specifically ordered systems*.
- In the case of the nervous system the *basic structural elements* are **neurons**, which can link up into **hierarchically integrated neural networks**, constituting *specifically ordered systems*.

Second. Stored in the basic structural elements of IGS's are ***data*** or *coded messages*, which represent the internal information of the IGS. The data are recorded using specific ***code pairs***.

- The computer processor stores ***data*** in the ***computer's memory***. Data are recorded using the ***binary code***: **0 and 1**.
- The *data* of living cells are stored in ***DNA molecules***. The information stored in DNA molecules is usually recorded using the ***code pairs***: **A-T *and* G-C (**A-T and G-C are *complementary pairs of nucleotides in DNA*).
- *The* ***data of the*** *nervous system* are stored in *neurons*. In an individual neuron the data are recorded using a specific ***code pair***: the *neuron's* capacity for **activating *or* blocking** the motion of nerve impulses.

Third. The data stored in the basic elements of IGS's are grouped into sets of data – "files". A "file" is a set of data that the IGS *treats as a unified whole* in the *process of storing, sending or processing*:

- In a computer all data is arranged at several levels. The smallest "unit of arrangement" is the ***file***. The content of the file can be any text (programme, letter, etc.), the image and even sound in coded form.
- In the living cell it is the genetic information stored in DNA molecules, for example, that can be regarded as data "files" – each gene represents a "file".
- The data of the nervous system is grouped into information units or "*nervous system files*" (or simply ***files***). The nervous system file is the smallest set of data "recorded" in the neurons, utilised in the nervous system as a "united whole", constituting information. For example, an image that is viewed, a sentence heard or an odour picked up by smell.

Fourth. Present in every information-generating system are *control programmes* – ***operators*** that determine the "sequence for reading" the data stored in IGS's (*operator – something that acts or operates*).

- Computer *operators* are called **computer programs**, contained in the computer's memory. Computer programs represent a list of instructions determining the actions to be implemented by the computer. Computer programs consist of loadable sets of instructions. (The computer operator usually acts in accordance with a four-step principle: receives the date, decodes them, executes them and responds.)
- In living cells the ***operators*** are particular **regions of DNA molecules** that coordinate the reading of DNA data.
- In the nervous system *operators* are located in the **brain's control centres**. The operators of the brain's control centres are the internal programmes (information) that determine the way neural networks are linked in order to "read" the data stored in the neurons.

In addition to these four similarities in the principles of operation of IGS's that I have observed, there may be many others.

2.2. THE REAL AND IRREAL NERVOUS SYSTEM

The (real) nervous system is one of the IGS's – information-generating systems – known to humans. The basic structural elements of the nervous system are ***neurons*** (nerve cells), which can link up into specifically ordered systems – ***hierarchically integrated neural networks***.

*Generally familiar ideas regarding the **real** nervous system and neurons*

The **nervous system** *or* nerve tissue. The nervous system is constituted of hundreds of billions of neurons or nerve cells. The nervous system brings together the separate parts of the human organism, ensuring its coordinated functioning, in addition to which it connects the organism with its environment. In humans the nervous system consists of two parts: the *central nervous system* (CNS), which performs higher-level nervous activity, and the *spinal cord*.

Neurons *or* nerve cells. The nervous system consists of hundreds of billions of neurons. Neurons are the basic units of the nervous system, consisting of the cell body and projections. Nerve cells transmit *nerve impulses*. They are electrically excitable cells that process and pass on information – data. Neurons are excitable cells of the nervous system, capable of generating action potentials (becoming excited) and sending signals that excite. In addition, the motion of nerve impulses is *stimulated* or *blocked*, thus organising and coordinating the motion of nerve impulses.

Neural networks. In generating information, individual neurons link up into systems that form *hierarchically integrated networks of neurons*.

*Assumptions regarding **irreal** neurons and the **irreal** nervous system*

In the chapter "Mechanics of the unknowable world" the *hypothesis* is advanced that every real cell of a living organism is linked to its irreal part – an irreal cell.

Irreal neurons (irreal nerve cells) constitute an *irreal* part of a *real* neuron (nerve cell) (or an irreal neuron linked to a real neuron). The irreal neuron, like irreality, is a concept for which there is no proof. The irreal neuron "communicates" with the real neuron, utilising *quantisable* and *non-quantisable* energy. The metabolism of the real neuron releases energy that is not quantisable, i.e., does ***not*** belong to reality. This kind of energy, along with the information (data) that it carries, ends up in irreality. Conversely, the irreal neuron can release energy that ***is*** quantisable. This kind of quantisable energy, liberated from irreality, carries with it the reflection of irreal information (data) in reality (see 1.2).

The irreal nervous system. Assuming that each real neuron is linked to an irreal neuron, it may be thought that in the irreality of life these irreal neurons form something that may be referred to by the concept of the ***irreal nervous system***. In generating information, real neurons link up into real neural networks. I assume that simultaneously the irreal neurons also constitute some kind of formation, which could be referred to as an ***irreal neural network***.

2.3. RATIONAL AND IRRATIONAL REAL DATA

Generally familiar ideas

The word *data* is the Latin plural of the word *datum*, meaning "asserted", "given". The word "data" is perceived as a fact, a number or an idea. In engineering, mathematics and geometry the term *given* is often replaced with the word *data*. In computer science data constitute elements of the computer's memory. Data represent a form of information coding suitable for computer use.

Every information-generating system has memory elements: elementary units that provide the basis of information generation. I will refer to the elementary units of information generation arranged in the nervous system by the concept *nervous system data* or simply ***data***.

Assumption

*The **data** of the real nervous system* or coded messages are stored in *neurons*. Neurons (or nerve cells) are *specifically ordered systems that have the potential to release or absorb energy*. By releasing or absorbing energy, nerve cells can "record" data.

Yes/no data

In an individual neuron data is recorded using a ***code pair –*** the *neuron* can ***stimulate or block*** *the motion of nerve impulse* (similarly to the 0/1 or yes/no principle used in a computer transistor). Stimulation or blocking relates to the rhythm of motion of the nerve impulse between neurons.

The data stored in the neuron can *stimulate* or *block* the motion of a nerve impulse in the neural network, i.e., the *data* stored in the neuron ***stimulate*** or ***block*** the motion of the nerve impulse from one neuron to others.

The stimulation or blocking of nerve impulse can in a sense be equated with the ***yes/no*** principle, i.e., if the neuron's data *stimulates* the impulse, then the ***yes*** principle is implemented, while if it is blocked, then the ***no*** principle is implemented.

Irreal data

From the above

Life represents the unity of reality and irreality. Life is made up of cells that are simultaneously located in the reality and irreality of life. The nervous system of the brain consists of real nerve cells – *real neurons* with ***real data***.

Assumption

Every real neuron also has its non-material part (or "contact") in irreality – an *irreal neuron*. It may be thought that there are also data in the irreal neurons – ***irreal data.***

An analogy for the mutual reflection of real and irreal data

Once there lived two women who were inseparable friends. They had been friends since childhood, even though they were very different. One was interested in art, music and literature, while the other was interested in practical things: gardening, sewing and cooking. They grew up and fate drew them apart. One of them lived in one of the world's largest cities, while the other lived in her native country, in a small house with a garden. They were inseparable, and so they would be in touch every day, talking over the telephone, sending text messages and exchanging emails. One of them would tell the other about films and books she liked the best. And the friend would try to see the films and read the books. The other described the latest recipes she had created. The first was very glad and said she would try them out. Although the two friends were dependent on one another, nevertheless they were personalities, each with her own view of the world and things. And so sometimes the one would say that the particular book was not very good, while the other would say that the salad could have been better.

From the above

The reality and irreality of each cell exchange energy: the reality of the cell can release *non-quantisable* energy, which ends up in the irreal cell. Conversely, the irreal cell can release *quantisable* energy, which ends up in the reality of the cell. The energy that the reality and irreality of the cell exchange also incorporate information: a *mutual reflection of real and irreal data*.

- Through non-quantisable energy, the neuron's reality "sends" a reflection of its real data to the irreal cell.
- Releasing quantisable energy, the neuron's irreal cell "sends" a reflection of irreal data to the real cell.

Assumption regarding the reflection of the irreal neuron's data in the real neuron

When the irreal neuron's *irreal data* are reflected in the *real* neuron, they can ***stimulate*** or ***block*** the motion of a real nerve impulse.

Drawing together the above

The motion of a nerve impulse in the ***real*** neuron can be coordinated by four kinds of data.

- Data of real origin that *stimulate* the motion of real nerve impulses;
- Data of real origin that *block* the motion of real nerve impulses;
- Data of irreal origin (a reflection in reality of irreal data) that *stimulate* the motion of real nerve impulses;
- Data of irreal origin (a reflection in reality of irreal data) that *block* the motion of real nerve impulses.

The rationality and irrationality of reality

In terms of the possibility of *discovering* events in the *reality* of life they can be characterised as ***rational*** or ***irrational***. Thus, the concepts *rational* and *irrational* apply to *reality* – or more precisely, to the possibility of discovering the direct causes of events in reality.

Real, rational events

The term ***rational*** is applied to events in living *reality*. The origin of rational events ***can*** *be discovered*, because their cause is change in non-living matter or the rational principles of the generation of information.

Real, irrational events

The term ***irrational*** is applied to events in living *reality*. The origin of irrational events ***cannot*** *be discovered*, because these events are initiated by *irreality*. Or, more precisely, by the reflection of irreality in the reality of life.

Rational and irrational real data

The source of data of real origin ***can*** be discovered. Data of real origin have been generated by reality, and so the conditions of origin of the data can in principle be discovered. For example, it is possible to establish what data in the nervous system are involved, adding up one plus two.

The source of data of irreal origin in the real nervous system *cannot* be determined. Data of irreal origin are generated as a reflection of the irreal data of the nervous system in reality; hence, the conditions of origin of the data *are in principle indeterminable*. For example, it is not possible to determine the cause of origin of the data that determine whether I like or dislike the fragrance of lilac.

In order to denote what kind of data in the neuron – *real* data or the *reflection of irreal data* – is *decisive* for the coordination of the motion of a real nerve impulse, I will use the concepts: ***rational data*** (or data of rational origin) and ***irrational data*** (or data of irrational origin).

Four kinds of real data

Drawing together the above information

The data stored in real nerve cells can coordinate the motion of nerve impulses in neural networks, stimulating or blocking them through implementation of the yes/no principle. Apart from this, the origin of the data may be real and thus rational, or irreal and thus irrational.

In terms of the terminology proposed here, a real neuron can employ the potential of four kinds of data:

- ***Rational yes*** data – data of *real origin* that *stimulate* motion in the real nerve impulse;
- ***Rational no*** data – data of *real origin* that *block* motion in the real nerve impulse;
- ***Irrational yes*** data – data of *irreal origin* that *stimulate* motion in the real nerve impulse;
- ***Irrational no*** data – data of *irreal origin* that *block* motion in the real nerve impulse.

Question: is it possible to store in an individual real neuron only data of one kind, or all four kinds of data?

Assumption: The nervous system consists of a vast number of neurons, and all four variants are possible. There are neurons in which only one kind of data can be stored; other neurons can store two kinds of data; there are neurons in which three kinds of data can be stored; and neurons that store data of all four kinds.

2.4. RATIONAL AND IRRATIONAL REAL FILES

In order to facilitate the use of data for generating information, they are grouped together. Since I am using the concept of data, borrowed from computing, with regard to the arrangement of information codes in the nervous system, I will refer to the data grouped in the nervous system using the borrowed concept of "files".

Brain files (or simply ***files***) are the smallest sets data "recorded" in neurons that the nervous system utilises as a "united whole" in generating information.

Generally familiar ideas concerning computer files

In a computer, all the data are arranged in several levels. The lowest "ordering unit" is the ***file***. A file is a set of data *treated as a united whole in the process of storing, sending or processing*. The content of a file can be any text (program, letter, etc.), image or even sound in coded form – anything which a computer can retain in its memory and which the user wishes to preserve.

An assumption regarding the grouping of data in real brain files

The nervous system records the received information as separate pieces. The received pieces of information are subsequently recorded in memory.

For example, at a fashion show I saw the "stunning" dress demonstrated by a "stunning" model and then heard a "dreary" comment by the organizer of the fashion show. All of this perceived information was "recorded" in my brain and stored in the memory as separate pieces. The nervous system records in one section that which I saw, namely, the appearance of the model, the character of the dress, etc., and in another section that which I heard, namely the comment by the organiser of the show. In addition, the odours that I smelled are also "written down" somewhere, and my feelings regarding the unacceptable comment together with the pleasant feelings I experienced are recorded somewhere else again.

The above suggests that information is recorded, relocated and utilised in the nervous system as a variety of sets of data or *brain files*. The files recorded in the brain may be activated, forming more or less credible recollections of what has been experienced.

An example proceeding from the above. A lady sat down next to me on the train, and I sensed a powerful aroma of perfume. Somewhere and at some time this aroma had already caught my attention before... Ah, yes: the fashion show and the "stunning" model... There was something else as well – the non-descript organiser of the event. The information files from various regions of the brain constituted the overall "picture" of my memories. But how credible was this picture?

Brain files are sets of data. The source of the data stored in neurons may be *rational* or *irrational*. An individual file consists of a large number of data. Depending on whether the generation of files is dominated by data of *rational* or *irrational* origin, they may be referred to by the concept of *rational* or *irrational files*.

Rational brain files

Rational files generally consist of real data of rational origin. Rational brain files contain images, text, etc.

Irrational brain files

Irrational files mainly consist of real data of irrational origin. Irrational files are constituted of our experience of sensations and feelings.

Sensation and feeling files are essentially a reflection of irreal data in real neurons.

2.5. REAL AND IRREAL BRAIN OPERATORS

The functions of the psyche are determined by the motion of nerve impulses in the neural networks of the brain. In order for an idea or emotional expression to come about in the psyche, the neurons of the brain are connected in neural networks.

What is it that carries out this unique "task", that of linking up individual neurons (or neuron files) into hierarchically integrated neural networks?

An idea proceeding from the conditions of operation of IGS's

In all IGS's there are IGS operators at work (an operator being something that acts or works). The IGS operator organises the reading of the data stored in the information-generating system.

The generally familiar ideas regarding computer "operators"

In computers, data is read by ***computer programs*** (computer programs represent the computer's operator). *Computer programs* are detailed sets of instructions that determine the operations a computer must carry out in order to perform tasks. Computer programs are stored in the computer's memory. Computer programs (computer operators) generally operate according to a four-step principle: data are received, decoded, executed and a reply is sent.

Assumption concerning the operators of the nervous system

The nervous system, including the brain, has its *control programmes* – ***operators***. Brain operators determine how the neurons are connected in neural networks. Brain operators are located in *brain control centres*.

Thinking analogically, brain operators are, as it were, the "brain's operating system". Brain operators permit the brain to carry out its task of processing data (information) that the body obtains using all five senses – vision, hearing, taste, smell and touch – as well as to generate new information.

A brain ***operator*** (or brain control centre operator) determines the way in which individual neurons are connected into neural networks in order for the nerve impulses to read the data stored in the neurons.

Brain operators represent one of the forms of *internal information* of the nervous system. *Brain operators* contain specific coded data (or brain control centre data).

I am assuming that operators function in brain control centres already from the time of a person's birth, but they have a relatively small number of operators (or operator programmes). During the course of a human lifetime the number of operators in the brain control centres increases significantly.

Real and irreal operators

From the above

Life is the unity of living reality and irreality. The brain, too, constitutes a unity of reality and irreality, and accordingly the separate structures of the brain constitute a unity of reality and irreality.

The brain control centres, like the brain itself, consist of neurons. If there are real brain control centres then, in accordance with the principle of parity, there must also be *irreal brain control centres.*

Assumption:

- ***Real*** brain operators determine the way ***real neurons*** are connected to form neural networks.
- ***Irreal*** *operators* stimulate the "communication" of ***irreal neurons***; in other words, they, as it were, form "irreal neural networks"**.**

(The concepts of irreal operators and irreal neural networks are based on the assumption of the unity of the reality and irreality of life and the parities deriving from it.)

Hence,

real operators function in the real brain, whereas ***irreal operators*** function in the irreal part of the brain.

Assumption regarding the mutual reflection of the activity of the real and irreal operators

Real operators determine the way that real neurons are connected in the neural network to generate information. Along with the development of a real neural network, something similar takes place in irreality, namely interaction between the irreal neurons.

Real brain operators function in reality. The result of their activity, namely the real neural network, is reflected in the irreal part of the brain.

On the other hand, the irreal operators form irreal neural networks. The neurons involved in irreal neural networks are reflected in reality – the corresponding real neurons are connected in a neural network. (Thus an irreal operator can create a real neural network!)

The irreal brain operators function in irreality, their activity being reflected in the real part of the brain.

An analogy for the way that the rules of one system cause changes in another system

A town in a valley had a children's summer camp high in the mountains. The camp was located within a national park. Entry into the national park was permitted only on a bus having twenty seats. Once a week (on Saturdays) the bus took the children's parents to meet the children. There were several hundred children in the camp, but the bus could only bring twenty parents. On Friday, the camp leader would tell the children which parents (chosen by him) would have seats on the Saturday bus. The children would inform their parents. Not all the parents always had the possibility of going to the camp on that specific weekend. And so the parents would contact each other, in order to send a package or swap travelling times...

Conclusion

Real neural networks (or separate regions of them) can be connected by an operator located in a real brain control centre, or the *real neural networks are connected as a reflection of the activity of operators located in irreality*.

The conditions of activity of real and irreal operators

*The principles of activity of **real** operators*

Real operators are part of reality, and so they function in accordance with the rules governing reality. Two different realities are known – *living* and *non-living* reality.

- A feature of living reality is the creation of order in the organism. Life is organised and structured, and has its basis in the motion of matter, energy and information, which becomes increasingly ordered, based on the ***rules of life***.
- A feature of non-living reality is motion of matter that becomes increasingly chaotic, based upon the principle of ***randomness*** *in relation to living reality.* *The principle of randomness* – ***non-living reality has no "plan" for interaction with living reality***, and so its interaction with life can be regarded as random, rather than rule-based.

(In other words, non-living matter interacts with living matter *without taking into account* the conditions of existence of living matter, i.e., whether the action of non-living matter is advantageous or disadvantageous to life.)

Thus, in connecting neural networks, the activity of real operators may be based on two different principles:

*the activity of operators based on real **rules** governing the functioning of the psyche*
or
*the activity of operators based on the principle of **randomness** of non-living matter*

*The principles of activity of **irreal** operators*

The activity of *irreal operators* proceeds from the *assumption* of the existence of irreality. Irreality consists of two parts: ***living irreality*** (the irreality of living organisms) and ***God's irreality***. Accordingly, the activity of irreal operators in connecting irreal neural networks is based on two different principles, which proceed from the *conditions of existence of the irreal part of life* and from the *existence of God.*

Accordingly, the activity of irreal operators in connecting neural networks may be based on two different principles:

in connecting irreal neural networks, the irreal operator proceeds in accordance with ***being part of life***
or
in connecting irreal neural networks, the irreal operator reflects the presence of the existence of God – ***inevitability*** (or *predestination*)

Rationally and irrationally constituted real neural networks

In connecting real neural networks, the brain generates information. If we assume that neural networks are connected by brain operators then the question is: according to what principles do these operators work.

Real neural networks can be connected both by real operators and by a reflection in reality of irreal operators. The activity of real operators is *rational*; it can be discovered. The reflection of the activity of irreal operators is irrational, and the principles of their activity cannot be discovered or proven. Apart from this, the activity of operators, both real and irreal, can have two different causes (randomness or regularities in the case of real operators; irreal belonging to life or inevitability in the case of irreal operators).

Conclusion

Real neural networks (or separate parts of them) can be connected by four kinds of operators.

- ***Rational, rule-based*** *operators.* These are operators active in reality, and their activity in connecting real neural networks is based on the ***logical rules*** of the existence of life (*for example*, on life's desire to survive and reproduce).
- ***Rational, random*** *operators.* These operators also act in reality, but their action is based on randomness. The neural networks form ***randomly***, without utilising logical rules (*for example*, choosing the path to follow at a crossroads fortuitously, at random).
- ***Irrational operators interested in the existence of life.*** These are operators that act in irreality, their activity being reflected in reality. The activity of an irrational operator interested in the existence of life is based on the ***irreal values of existence*** of the specific living thing (for example, not to feel pain).
- ***Irrational, inevitable*** *operators.* These operators act in irreality, their activity being reflected in reality. Irrational, inevitable operators reflect ***the presence of the existence of God*** in the formation of neural networks. In connecting neural networks, they proceed from the values of ***inevitability*** (*for example*, the path chosen seemingly at random at a crossroads was predetermined…).

A single, individual neural network (a network simultaneously located in the real and the irreal part of the brain) can be connected by:

- only *one* kind of operator;
- *two* different operators;
- *three* operators;
- through the interaction of all *four* operators.

3. THE MECHANIGS OF THE FORMATION OF CONSCIOUSNESS

Both my thoughts and my feelings are information generated by the psyche. Of all the forms of information in the psyche, it is easiest for me to follow the way that the information in my consciousness is generated. Thanks to information in the consciousness, we are aware of ourselves and the world. And we are aware that, in addition to that which is visible and logically discoverable, there is the invisible and that which is impossible to discover. You might say, I live and therefore I think and feel. By deepening my understanding of the conditions of generation of information in my consciousness, I can hope to identify the principles governing the potential contacts between the reality and the irreality of the psyche. And beyond the irreality of the psyche it may be possible to sense a reflection of the existence of God...

Generally familiar ideas regarding the psyche and consciousness

Consciousness. Consciousness is a complex of psychic phenomena that reflect events in the external world and inner states as perceived at this particular moment. Consciousness contains current information that a person is engaged with at this moment.

The **psyche** is a set of properties of the human brain that regulate behaviour in terms of *information*, rather than in terms of matter or energy. The existence of the psyche is ensured by the *functions of the psyche*.

Psychic functions are psychological expressions of the forms of perceiving, processing, storing and putting to use information carried out by the neural networks of the brain. The functioning of the psyche is carried out by *signalling systems*.

3.1. FORMS OF INFORMATION IN CONSCIOUSNESS

Consciousness is constituted of three different types of information in terms of *origin* and *direction of activity* – ***perceived information, information for internal use*** and ***expressed information***.

Perceived information

Conscious perceived information links *consciousness* with ***conditions***. Perceived information forms in consciousness when conditions are *reflected* in the psyche and *cognised*, i.e., transformed into conscious information. Cognised perceived information ends up in the short-term or long-term memory and may become the cause of generation of another type of information.

Conditions

In terms of the location of conditions in relation to the psyche they can be divided into *external* conditions (conditions outside of the organism) and *internal* conditions (conditions within the organism).

External conditions are formed by the environment in which a person lives and the society with which a person is in contact. Perception of external conditions is carried out by the four human senses (vision, hearing, touch, taste and smell).

For example, She said she was lonely … I heard this, and the perceived sentence was constituted in my consciousness as the information "she is lonely". This I will remember. The further course of this conscious information is connected with the memory and may be a cause of generation of information of a different type.

Internal conditions – these represent the contact between the human nervous system and the organism. Changes in the human organism stimulate the nerves. And the nerves, in turn, "inform" the central nervous system. Some of these stimuli are *consciously received* and generate conscious information.
An example. My head began to ache, and I became conscious of this as the information "my head is aching". This is consciously perceived information, the continuation of which may be ensured by other forms of conscious information. The information "I must take a pill" may appear in the consciousness; or other information, such as "It'll go away"...

Information for internal use
The causes of the generation of conscious information for internal use can be various – it can be perceived information, information stored in the memory or subconscious information. Information for internal use does not leave the psyche. It can end up in the memory, and it can become the cause of generation of new internal information. We become conscious of information for internal use as *thoughts*, *imaginings*, *desires* and *feelings*. If the information of thoughts, imaginings, desires or feelings is not expressed, then this represents conscious information for internal use.

For example, "She is lonely" – I learn this from consciously perceived information. I am surprised. That can't be! She's always been so open, so communicative… These are my thoughts, which I don't express aloud.

Expressed information
Consciously expressed information connects the consciousness with *conditions*. The generation of expressed information can be brought about by several factors. In the first place, by perceived information; secondly, by information for internal use; thirdly, by subconscious and unconscious information. Expressed information is directed towards changing or not changing internal or external conditions.

For example, "She is lonely" is something I learn from consciously perceived information. I'm surprised at this. That can't be! She's always been so open and communicative. I meet a mutual acquaintance: "How can it be that she feels lonely? She has so many friends ...", I say to him. The acquaintance just smiles and says nothing…

3.2. THE CONTENT AND FORM OF INFORMATION

In thinking and discussing information, the concepts *information* ***content*** and *information* ***form*** are employed. We apply the concepts of content and form to many different things and events.

For example, the form represented by a cup may be filled with different kinds of content: water, milk or coffee, and all of these liquids will adopt the form of the cup. My neighbour shared her impressions of a theatrical production: "The content of the theatrical production was simply repulsive, but I liked the form..." At the opening ceremony of a new school, a representative of the town posed the rhetorical question: "We've built you a school building, but what content will you fill it with?"

Generally familiar ideas regarding the philosophical aspect of the categories of content and form

Content and form are mutually corresponding (correlated) philosophical categories. Content is the decisive aspect in the relationship between content and form.

- *Content* reveals the unity, properties, internal processes, relationships, contradictions and developmental trends of a particular object.
- *Form* represents the character and structure of existence and expression of the content.

The mutual relationship between content and form is dialectic: *content* is continually developing, while *form* is relatively more enduring; hence, form can not only stimulate but also hinder the development of content.

The content and form of the primary and secondary information of life

From the above regarding primary and secondary information
(see 1.2, "Information")
With regard to the direct dependence of the information produced by living organisms on the real conditions, it may be divided into *primary* and *secondary* information.

Information in reality (or real information) represents sets of code existing in reality whose primary cause is an information-generating system (IGS). Based on the dependence of information on changes in real conditions, it may be divided into *primary* and *secondary* information.

- *Primary* information is the *primary* cause of changes in reality, i.e., it *initiates the motion of reality*, which is *not dependent on other chains of cause and effect*.
- *Secondary* information *forms part of the chains of cause and effect of changes in reality* and is a part of changes in reality.

An assumption regarding the content and form of information

Information ***content*** *is a component only of primary information.*

The content of information incorporates the meaning or lack of meaning of the existence of life.

Information ***form*** *constitutes both primary and secondary information.*

The form of information represents the sets of codes and images formed in the living organism which ensure the functioning of the psyche, communication with the separate parts of the living organism and with external conditions.

It follows from the above that:

Primary information represents the unity of information content and form. Primary information is only an element of the living organism or the nervous system. *Primary information* constitutes the *primary cause* of changes in reality (such information initiates new chains of cause and effect that are independent of change in the rest of reality).

Secondary information is constituted solely of information form. The *cause of secondary information is primary information* – sets of codes and images that incorporate a reflection of primary information. Secondary information "after coming into being" is incorporated into the chains of cause and effect of changes in matter.

Secondary information is both a part of living things and exists outside of living things, i.e., in non-living reality.

Assumption regarding the information generated by a computer

In addition to living organisms, information in reality is also generated by the computers created by people (computers being one of three kinds of information-generating systems).

The information generated by a computer exists only as information form, i.e. sets of codes. Information form is imbued with content only by humans themselves. *For example*, I'm interested in the changes in population in Latvia over recent years. From information available in the internet I learn that Latvia had a population of 2 million 146 thousand in 2014, compared with 2 million 169 thousand in 2013. These are no more than data; it's up to me to imbue these data with meaning…

The information generated by a computer does not have information content. The information generated by a computer is given content or its reflection by a person in creating computer software or interpreting information read from a computer monitor.

The primary and secondary information of consciousness

The information values of the psyche

Information in consciousness is generated by the human psyche. The information of the consciousness forms on the basis of the data and data files located in the brain. In order to separate conceptually the functions of the brain from the activity of the psyche, I will use the concept of *information values.*

Information values are sets of brain data and files with particular significance, which the psyche uses for the generation of *primary information*, as well as for restructuring information, forming memory, etc.

An assumption regarding the significance of primary and secondary psychic information for the formation of consciousness

The immediate cause of the formation of consciousness is *primary* information. Primary psychic information represents a unity of the information values of content and form – thus, we are aware of both the content and the form of information. Consciousness is formed of three types of primary information: *perceived information, information for internal use* and *expressed information*.

In the consciousness, primary information brings about the generation of secondary information. Secondary information "abandons" consciousness, becoming an element of psychic information or a stimulus to human expressions. Consciousness generates three types of primary information, and this information is the immediate cause of three types of secondary information: *secondary perceived information*, *secondary information for internal use* and *secondary expressed information*. Secondary information comprises only that form of information which incorporates a *reflection of the content* of primary psychic information.

Initiators of the generation of primary psychic information

The question arises as to what initiates the generation of primary psychic information: the information values of content or form?

The content and form of psychic information are constituted of information values that are to some degree independent. The question is, which is it that initiates the generation of primary psychic information – information form or content?

Assumption

The generation of primary information in consciousness can be initiated by information values of both content and form. If one of the information values initiates the generation of primary information, then the other concludes it.

***Perceived** information*

The generation of primary perceived information is initiated by the psychic information values of *form* (the human senses initiate human perception). The reflected information values of form are endowed in the consciousness with *content* (or content information values).

Example. I see a person walking down the street. I see them in a general sense rather than concretely, since I am altogether indifferent to them. Then suddenly I notice something familiar. It can't be! It's my former classmate, whom I haven't seen for many years. *Analysis* – the perceived form (observed person) is endowed with content (meaning – my classmate). Primary psychic information is generated, and is transferred for further "use" in the psyche already as secondary information of consciousness.

*Information **for internal use***

The generation of primary information for internal use may be initiated by information values of both *content* and *form*.

Example (continuing the above). Yes, this is he – my former classmate. *Analysis* – the *form* of the information was initiated by memories, the significance of which will be determined by the initiated *content*. My feelings are "stimulated". I should meet him. But how? I could quicken my pace and catch up with him. *Analysis* – here information *content* initiates information *form*.

***Expressed** information*

The generation of primary expressed information is initiated by psychic information values of *content*. The information values of content reflected in the psyche are given *form*, generating secondary expressed information.

Example (continuing the above). Then another thought arises in my consciousness: "Do I actually want to meet him?" *Analysis* – this is still information for internal use, where content has initiated form. I take the decision not to do anything… *Analysis* – secondary expressed information, which begins with psychic information content, obtaining the form of doing nothing.

An assumption regarding the location of the information values of content and form in the brain

The information values of content and form are formed by the data and files located in the brain. Through analysis of the above-described examples, a hypothesis can be developed about the way in which the data and files forming the information values of content and form are arranged in the brain.

- The data (information values) constituting information *form* are arranged both along the "periphery" of the brain (where they initiate perceived information and conclude expressed information) and in the central part of the brain (constituting the form of information for internal use).

- The data (information values) generating information *content* are located only in the central part of the brain (where they conclude the generation of perceived information, initiate the generation of expressed information and constitute an element of information for internal use).

3.3. THE INFORMATION VALUES OF CONTENT

Information content does not directly appear in the secondary information generated in consciousness. It appears as a reflection of the corresponding primary information. The reflection of content is incorporated into the form of the secondary information of consciousness. *For example*, the text I am writing today is also secondary information generated by the primary information of my consciousness – letters, words and sentences.

This subchapter extensively discusses information content, but all the ideas will be expressed as information form. We may analyse all types of information: *perceived information, information for internal use* and *expressed information*, but everything we identify as information will be secondary information, i.e., it will consist only of information form, the information content appearing only as a reflection.

What is it that forms the content of the information in consciousness?

The information values of *content* proceed from the conditions of *existence* of life – the *meaning* of the individual *existence* of a human being and other living things and the *meanings of non-living reality and God*.

The meaning of the individual existence of living things

Assumption regarding the meaning of the individual existence of living things

Life (every living organism, including a separate cell of an organism) *has an "encoded plan" for existing in reality.* Life is constituted of living reality and living irreality. It may be thought that living irreality also has some kind of "conditions for irreal existence". Accordingly, it is possible to identify in the expressions of living reality the meaning of existence of both ***rational*** and ***irrational*** *origin.*

- *Rational expressions are ensured by the coded "plan" of existence located in* ***reality.***
- *Irrational expressions are formed by the* ***reflection*** *in the* ***reality*** *of life of "conditions for irreal existence" located in* ***irreality.***

Every living thing has some kind of individual ***meaning of existence*** (i.e., a ***meaning*** why it exists). Where can this individual meaning of existence be found? The *meaning of existence* of a particular individual appears through its expressions. The *motives* and *aims* incorporated into its expressions reveal the meaning of existence of living things. From an understanding of the aims and motives incorporated into the expressions of individual life forms we can form a judgement as to the meaning of this expression.

Life is diverse. In terms of the structure and conditions of functioning of living organisms, they can in a sense be divided into four groups:

- Organisms without a nervous system, which consist ***only of*** "simple" ***cells*** – unicellular organisms, microorganisms and plants. (From the perspective of

seeking the meaning of existence, I include viruses and fungi in this group as well, although biologists will no doubt object…).

- Animals with a ***nervous system*** but ***without a brain***. These are the ***lower animals*** – insects, fish, etc. In the lower animals the nervous system, which brings about reflexes, is the coordinator of all the functions of the organism.
- ***Higher animals***, which ***have a brain and psyche***. For contact with their environment these animals use one of the structures of the psyche – the ***first signalling system***. (Signalling systems realise the signalling interaction of humans and higher animals with their environment.) For higher animals the *first signalling system* is the ***supreme*** organiser of the processes of existence.
- *The* ***human psyche*** has ***two*** levels of signal interaction with the environment, the *first* and *second*. The ***second*** signalling system forms in the psyche on the basis of the *first* signalling system. In humans, the second signalling system is the ***supreme*** organiser of the processes of existence.

The meaning of existence of plants

Plants consist only of cells, with no nervous system. Analysis of the real expressions of plants provides an answer to the question of the meaning of their existence. If we assume that life constitutes the unity of reality and irreality, then it is necessary to discuss separately the rational and irrational expressions of the meaning of existence of plants (the irrational meaning of existence being the reflection of the irreality of the plant in the reality of the plant).

The ***rational*** *meaning of existence.* Observing the expressions of plants, one might conclude that the rational meaning of their existence is to ***live, reproduce*** and ***occupy a living space***. *For* example, each tree in a forest strives to occupy as much space as possible, to survive in spite of the fact that insects are gnawing at its leaves, and to reproduce by sowing its seed.

The ***irrational*** *meaning of existence.* It is practically impossible to speak of irrational expressions of the meaning of existence for living organisms that have no nervous system. I will, however, try.

One idea – plants "fight" for their living space not only in reality but also in irreality. *For example*, it is difficult for other plants to exist under an oak tree. People say that "the oak has a powerful biofield".

Another idea – the irrational meaning of existence of plants is expressed in the necessity of *being beautiful*. (Here the concept "to Be beautiful" is used in the broadest sense, also incorporating the human individual assessment of what is beautiful.) This is seen especially clearly at the *time of flowering*. One plant "strives" to outdo others in the beauty of its blossom. This can be explained purely in rational terms, in terms of the wish to attract insects, so that they pollinate the plant. But is this all? What is beauty? Beauty cannot be defined; it belongs to irrational values, and perhaps for this reason *irrational meaning is expressed in the striving* ***to Be beautiful***.

Generalising the above – one of the irrational expressions of the meaning of existence of living things is *to Be beautiful*.

The meaning of existence of the lower animals

In the lower animals, for example insects, the nervous system organises the whole life of the organism. Observing the forms of expression of insects, it is possible to recognise the rational and irrational values of the meaning of their existence.

The ***rational*** *meaning of existence.* In the expressions of insects we may observe *strivings towards surviving, reproducing* and *ensuring living space* (similar

to plants). Apart from this, these living things are characterised by the striving ***to ensure the place of the individual in the hierarchy of the species.*** *For example,* particular individuals have their own place in the hive**.**

The irrational *meaning of existence.* For all the living organisms that have a nervous system the reflection of the meaning of irreal existence in reality can be identified and perceived. Insects, like any animals or people, show a ***striving to avoid unpleasant sensations.*** *The idea* that sensations and feelings represent the reflection of the irreal data of the nervous system in reality in an irrational way. Apart from this, insects have a *striving to be liked*, to stand out among the fellow members of their species in order to have the chance to reproduce.

The meaning of existence of the higher animals

For the *higher animals*, such as dogs and cats, survival and existence are ensured by the *first signalling system.* The first signalling system for animals (and humans) is revealed through expressions of *sensations, perception, ideas, attention, learning skills, passion, emotions, instincts* and *drives*.

The ***rational*** *meaning of existence is expressed in survival, reproduction, creation of a living space and ensuring a place in the hierarchy of the species* (as with the lower animals). In addition, the higher animals are capable of organising *the* ***survival of the species.*** *For example*, in a wolf pack there is a strict hierarchy, and a pack that is better organised has a greater chance of survival.

The ***irrational*** *meaning of existence is expressed as a striving to be beautiful, avoidance of unpleasant sensations, a striving to* ***earn recognition*** *and attain a* ***sense of wellbeing***, and the *capacity for* ***attachment to*** (possibly to love) *another living thing. For example,* practically all of the above-mentioned expressions of the irrational meaning of existence can be observed in the dog's relationship with its master.

The meaning of human existence

In the case of the human psyche, the first signalling system provides the basis for formation of the *second* signalling system. The second signalling system is constituted of human *ideas, will, imagination* and *feelings*.

The ***rational*** *meaning of existence is expressed as* humans' conscious striving to *survive, reproduce, occupy living space, ensure their place in the hierarchy of society and organise the survival of some part of society* (for example, the family). Apart from this, the second signalling system determines the human *striving* ***to create for oneself, to obtain property***, and to reflect the ***content*** *of life in the* ***form*** *of language* and *images*.

The ***irrational*** *meaning of existence is expressed as a striving to avoid unpleasant sensations, attain a sense of wellbeing and earn recognition. And also to* ***experience positive or negative feelings.*** *For example*, feelings of self-love or self-pity (She said she loves me, but in fact she was capable of loving only herself.)

Conclusion

In analysing the expressions of the meaning of existence of various life forms, one can observe a rule: each subsequent level of the organisation of life incorporates the meaning of existence of the previous one, at the same time adding new possibilities of expression of the meaning of existence. Thus, *with an increase in the degree of organisation of living things in the direction from the cell to the second*

signalling system of the human psyche, the diversity of the meaning of existence increases.

Values of information content in the human psyche

The values of information content of the human psyche are constituted through two types of causes: the human being, i.e., life, and the environment which the human being inhabits – non-living matter and God.

The reflection of the meaning of human existence in the consciousness

The human being determines the content of their own existence in accordance with the information values of meaning. The content of psychic information is constituted of various *rational* and *irrational* information values of the meaning of human existence.

- *The information values of the* ***rational meaning of existence*** are reflected in the information of consciousness as a striving to *survive, reproduce, provide a living space, provide one's place in the social hierarchy, organise the survival of society, obtain property, as well as express the content and form of life in the form of coded information – in language and images.*
- The information values of the ***irrational meaning of existence*** in the information of consciousness are reflected as a desire to *avoid unpleasant feelings, attain a sense of wellbeing, earn recognition, create and experience positive or negative feelings.*

Common to all of these strivings, desires and necessities is the human ***ego***. The human ego forms the content of the information of consciousness: ***I*** do or don't need something.

The reflection in consciousness of non-living reality and the meaning of God

Life is part of being. In addition to living reality and irreality, being also includes non-living reality and the irreality of God. The reflection of these elements of being in life is also significant in the generation of information content. Expressions of non-living reality and the being of God do not incorporate the meaning of existence of the individual living thing but ***the meaning of being in general***.

Assumption

The generation of the real information content of consciousness can be influenced both by non-living reality and by God's irreality. Reflected in the psyche and in human consciousness, they reveal something of *the meaning of their existence*.

The reflection of non-living reality in the content of primary psychic information

When the meaning of non-living reality is reflected in the psyche and forms information content, it is expressed as ***meaninglessness***, i.e., when our thoughts and feelings have no meaning. The meaning of non-living reality is incorporated into its property of ***not changing its own motion or maintaining a state of repose***. In the conscious expressions of the individual the meaning of non-living reality appears, *for example*, as *indifference* to one's existence.

The reflection of the irreality of God in the content of primary psychic information

Proposition. God is not interested in the existence of the individual but in the existence of life as a whole. The irreality of God is reflected in the content of psychic information as the individual's irrational need *to offer themselves up* (rather than to

redeem oneself), to *sacrifice themselves* (give up themselves for the good of others), to *love* (not themselves but others), to *create* (not for themselves but for others), etc.

People have a need to ***create something new***. To create something in a spiritual sense – to discover hitherto unknown natural laws, to create a new work of art, etc. What stimulates a person to act is an important question: is it the necessity to satisfy their own ambitions or to create because it is impossible not to create? A truly creative person seemingly creates for themselves, but in actual fact they are creating for others. The reflection of God in the content of human consciousness is expressed as the ***creative spirit***. Hence the assertion made by many creative individuals: I don't know where it came from.

3.4. FORMS AND INFORMATION VALUES

The form of information corresponds to information codes and images. The form of information is an element of both the primary and the secondary information of life. In this subchapter I will discuss the character of the ***form*** of the *primary* information of consciousness and *its connection* with the *content* of primary information.

From the above (see 3.2, "The content and form of information")

Content and form are mutually corresponding (correlative) philosophical categories. The primary information of consciousness represents the unity of information form and content. Information content is constituted of the *meaning* or *absence of meaning* in human *existence*.

Assumption concerning the relationship between content and form in primary information

The information values of form imbue the *content* of primary information (meaning or absence of meaning) with an ***ordered*** or ***chaotic*** character.

From the above regarding the concepts of order and chaos in living reality
(see 1.3, "The unity of living reality and irreality")

The concepts of *ordered conditions* and chaos, i.e., *absence of order*, may characterise the positive or negative possibilities of existence of humans or other living things in their environment. *Ordered conditions* are conditions favourable for the existence and development of life. *Unordered conditions* (chaotic conditions) are conditions unfavourable for the existence and development of life.

How may we understand the dependence of the chaotic or ordered character of information values on the information values of form?

Content is the decisive aspect in the relationship between content and form. If form does not correspond to content, then a chaotic relationship results, whereas if form corresponds to content, then the relationship between content and form will be ordered.

Thus:

The *ordered* or *chaotic* character of primary information results from the ***correspondence*** or ***non-correspondence*** of the information values of *form* to the respective information values of *content*.

Based on the source initiating generation of the primary information of consciousness, it may be divided into consciously *perceived* information and consciously *expressed* information.

From the above (see 3.2)

Conscious perceived information is initiated by information values of form. The psyche gives content to the reflected codes (information values of form), generating *primary perceived* information.

The generation of *expressed information* is initiated by the information values of content. When they obtain form, the information values of content become conscious *primary expressed* information.

Information for internal use may be initiated by information values of both content and form. Hence, I will not deal further with this kind of conscious information.

The ordered or chaotic character of perceived information

The information values of form initiate the generation of primary perceived information in the consciousness. The five human senses reflect conditions as secondary information (information form), i.e., they reflect conditions as coded form.

The psyche endows this reflected form with content (information values of content), and primary perceived information is formed. Depending on how the information values of content *relate* to the reflected information values of form, the primary perceived information may be more or less *chaotic* or *ordered*. This ordered or chaotic character is passed on to secondary perceived information. The ordered or chaotic character of perceived information may be of *rational* or *irrational* origin. Perceived information is endowed with rational or irrational character by the origin of the information values of content – which may be real or irreal.

Examples

In the distance you could hear the noise of a car engine. He recognised it very clearly and was expecting it. It was her. Finally, she was driving home. *Analysis:* the reflected sounds may be connected with known content of real origin. Order having a *rational* origin is formed in the perception of consciousness.

On entering the room he sensed a smell of burning. He understood: the potatoes on the pan have burned *once again*. What should he do? *Analysis:* the reflected aroma is not compatible with the desired result. Chaos, having a *rational* origin, is formed in consciousness.

In the woods he saw a huge dog with a length of broken chain at its neck. He took fright… *Analysis:* the reflected appearance of the dog is not compatible with secure existence, and he is overcome by a sense of fear – chaos having an *irrational* origin.

On the way home he saw blossoming lilac, the first this spring. And he was overcome by inexplicable joy. *Analysis:* the reflected blossoming lilacs stimulate his feelings. Positive feelings are formed in his consciousness – order having an *irrational* origin.

Primary perceived information gives rise to secondary perceived information, which incorporates the ordered or chaotic character of the primary information. Secondary perceived information alters the functioning of the psyche. This generally involves the generation of information for internal use or expressed information. The

chaotic or ordered character of secondary perceived information can affect the chaotic or ordered character of the psyche.

Taking into account the analysis of examples, we may conclude that:

The ordering or chaotic character of primary perceived information is determined by the information values of ***content***.

The ordered or chaotic character of expressed information

The generation of expressed information is initiated by the information values of content. The information values of content incorporate various needs or their absence. These rational and irrational needs are enumerated in subchapter 3.3.

The information values that bring about the generation of expressed information are neither chaotic nor ordered. Expressed information values obtain an ordered or chaotic character when the content is given the form of an expression. Depending on the kind of form content obtains, primary expressed information will be more or less chaotic. Information obtains a chaotic or ordered character depending on whether the form of the information is capable of realising (filling) the content.

Examples

I want an apple. I go into the garden, because I know there will be apples there. *Analysis:* My desires correspond to my experience and possibilities. *Rationally ordered* expressed information is generated in consciousness.

A boy doing a test in algebra has forgotten the necessary formula, and so is not able to do the exercise. *Analysis:* The wish to answer the question does not correspond to the possibility. *Rationally chaotic* expressed information is generated in consciousness.

Evening is approaching, and I must get across the river at all costs, but I don't know how: I can't swim, and there's no bridge or boat… I'm starting to become alarmed and run chaotically along the bank. *Analysis:* the inability to realise a vital necessity gives rise to feelings of fear, i.e., *irrational chaos*, because the sensations or feelings constitute a reflection of irreality in reality.

She really, really wanted to enjoy her daily morning coffee, but no café was open yet at the hotel where she was staying. Leaving the hotel, she discovered a small bistro that also offered good coffee. She felt very, very happy. *Analysis:* the wish to enjoy coffee corresponded with the possibility of implementing it. Here the correspondence between content (the desire) and form (the possibility) constitutes irrational order: a sense of happiness and fulfilment.

Primary expressed information generates secondary expressed information, which incorporates the ordered or chaotic character of the primary information. The secondary expressed information generally initiates some kind of human action – to do, speak, listen, watch, etc. The chaotic or ordered character of secondary expressed information is reflected in human action.

Taking into account the analysis of examples, we may conclude that:

The ordering or chaotic character of primary expressed information is determined by the information values of form, and their correspondence or non-correspondence with the information values of *content*.

3.5. CHOICE OPERATORS

The primary information of consciousness is constituted of the information values of content and form. The human psyche holds many different information values of content and form. Each individual piece of primary information of consciousness (perceived information, expressed information or information for internal use) is generated through the interaction of concrete information values of content and form.

What is it that determines which information values of content and form will generate the information of consciousness?

This is determined by ***choice*** *operators* or *information values of choice*. *Choice operators* represent the third element of the psyche involved in the generation of the primary information of consciousness.

Choice operators ***choose*** *or* ***do not choose***:

what *content* is granted to a *form* in generating the primary *perceived* information of consciousness or what *form* to give *content* in generating the primary *expressed* information of consciousness

From the above (see 2.5, "Real and irreal brain operators")

Choice operators represent one kind of brain operator. The nervous system, including the brain, has its own control programmes – operators. The brain operators determine the way separate neurons are connected in networks so that the nerve impulses read the data located in the neurons.

Brain operators can function both within the *reality* of the brain, connecting real neurons, as well as in *irreality*, connecting irreal neurons. The activity of the real as well as the irreal neurons is mutually reflected, i.e., the real neural network is reflected in irreality, forming communication between the irreal neurons, and the communication formed by the irreal neurons is reflected in reality through the connection of the real neural network (see 2.5)

Based on the above-described idea, we may conclude that: an *irreal operator can also bring about the formation of a real neural network or part of such a network*.

The activity of brain operators proceeds from the conditions of existence of being. Being consists of non-living reality and God's reality, at the boundary of existence of which life has come into being: living reality and living irreality. All four forms of existence can determine the activity of brain operators.

Accordingly, ***real*** neural networks (or parts of networks) in the brain can be connected by four kinds of operators:

- ***real*** operators whose action is based on the ***rational rules*** *of life;*
- ***real*** operators whose action is based on the ***rational*** principle of ***randomness*** of *matter;*
- ***irreal*** operators whose action is based on ***irrational*** *interest in individual existence* (for example, to avoid pain);
- ***irreal*** operators whose action is based on the ***irrational predestination*** (or *inevitability*) of God.

There are many different operators at work in the brain. Those operators that link the information values of content and form, bringing into being the primary information of consciousness, I will refer to using the concept ***choice operators***.

The mutual dependence or independence of content and form

How is the activity of choice operators reflected in the primary information of consciousness?

Assumption

Choice operators determine the *mutual* ***dependence*** or ***independence*** of the information values of *content* and *form* in the primary information of consciousness.

The mutual ***dependence*** of the information values of content and form in the primary information of consciousness is determined by those choice operators whose activity is based on the conditions of existence of life: the *real* operators based on the *rational* ***rules*** of life or *irreal* operators whose activity is based on *irrational* ***interest*** in individual existence.

Rational experience operators

The real choice operators whose activity is based on logical rules can be described using the term "rational ***experience*** operator". The experience operator "knows" with which content information values to connect the reflected information values of form, so that logical perceived information is generated in the consciousness, or with which information values of form to connect information values of content, in order to generate consciously expressed information. The experience operator is active in cases where the individual is familiar with the real conditions.

Example

There is an apple on the table. I want the apple and take it. *Analysis:* the real operator based on the rules of experience connects my wishes (content) with my possibilities (form). In this conscious information the information values of content (my desires) are directly dependent on the information values of form (the possibility of fulfilling them). The primary information of consciousness concerning my wish to take the apple is transformed into secondary information, which stimulates me to take the apple.

Irrational experience operators

Irreal brain operators function in irreality and their activity is reflected in reality; consequently, their expressions are *irrational*. The irreal operator "knows" how to fulfil those desires that are connected with the individual's sensations or feelings. I will refer to the activity of the irreal operators in reality by the term *irrational experience operators*. Irrational experience operators can, for example, supply content for a reflected form, so as to generate information as positive feelings in consciousness. The activity of irrational experience operators can be observed very well in cases when we cannot give up undesirable habits through our willpower – smoking, alcohol, drugs., etc.

Example

My sense of wellbeing is dependent on having a cup of coffee, even though I know I must not drink coffee, since I have high blood pressure. My desires are stronger than my will, and I make myself a strong coffee. *Analysis:* the irreal experience operator connects my desires (content) with form – the ability to make coffee.

The mutual ***independence*** of content and form in the primary information of consciousness is determined by those operators whose principles of activity are not connected with the existence of life – real operators whose activity is based on the rational principle of ***randomness*** and irreal operators whose activity is based on the irrational principle of the ***inevitability*** (predestination) of God.

The choice operators working in accordance with the principle of randomness or inevitability are practically impossible to separate in the information of consciousness. Their presence is indicated by the mutual independence of content and form in the primary information of consciousness. The assertion that a certain event was fortuitous or predestined is hard to prove.

Examples

Not having anything to do, I went for a walk in the woods, and there I met her. My whole life changed. I thought it was predestined, but perhaps it was just fortuitous…

In a lottery I wish to win the jackpot (the sum is enormous). I fill out the form. Something amazing occurs: I win! *Analysis:* The content of the information of consciousness is not dependent on form. It is seemingly fortuitous. I do not and did not have any experience in how to win a lottery. My wish (content) to win the jackpot is not dependent on my possibility (form) of filling out the form. It was all a matter of *randomness*. But perhaps it was *predestination* that gave me this opportunity, an opportunity to know myself: what kind of person am I – someone who only takes or someone who also gives.

EPILOGUE

A person who had become acquainted with a draft of this work said something approximately like this: “Too many logical judgements on irrational things.” I agree. We will probably not obtain a new and deeper understanding of God in the form of logical and rule-based knowledge but as a revelation we can simply ***believe*** without the necessity for proof. I also concur with a rephrased statement that may encapsulate the essence of knowledge concerning the relationship between man and God: ***Be content, for I am unknowable!!!***

In this work I have sought a logical answer to the question “*How can it be that if He IS, I cannot say anything provable about Him to others?”*, and I consider that I did manage to derive a logically founded hypothesis. Only it is doubtful whether this hypothesis can actually be proven. So why this work? *In order to examine the general relationships of the world from a different perspective*.

Let us consider God as the absolute antithesis of matter. The existence of God and the reflection of His existence in consciousness is not based on any rules that humans may discover or comprehend. But what about the laws proclaimed by God in all religious literature? *For example*, Christianity preaches “Thou shalt not steal!” In my view, such an assertion incorporates values that provide the basis for human existence rather than an instruction from God. “Thou shalt not steal”, “Thou shalt honour thy father and thy mother”, etc. – these things are not necessary for God but for people, so that they can live and form society.

So what is it that God gives us, if not laws according to which we should live? I don’t know! Perhaps the question has to be formulated differently. Perhaps we should ask: what can I give God in order to remain in eternity? God “will not have any use” for our thoughts, words or deeds, since these are material.

I *believe* that God has keeping of our souls – the experiences of the soul. It cannot be that true feelings disappear without a trace. Feelings of love that comes from the soul, of faith or beautiful experiences remain forever. Suffering and painful experiences do not disappear either.

Feelings of profound experiences are diverse: some enrich the soul while others deform it. Base feelings, feelings of betrayal, intrigue and hostility can also incorporate terrifying force, which deforms the soul. I believe that such feelings do not simply disappear, but they are not eternal. Such feelings remain in the time between eternity and life. If life does not accept them they cease.

Remember – ***God’s world is ideally ordered and absolutely free***.

Reader, if you have something to say or ask, please write: *v.kreicbergs@inbox.lv*