

The Theoretical Foundation of Medicine

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In this paper the postulates of medicine are questioned and a new postulate will be introduced.

The accepted opinion is that physics is the most fundamental science and that medicine, chemistry and other disciplines are built on it.

I'm not sure this is the final answer and I will argue that, most likely, the fundament and foundation of science is not based on different matters/materials as in physics, but on the logic of principles, dealing with the behaviour of the objects in all sciences, i.e. *how the behaviour of the physical reality occurs, regardless of its content.*

Once we define the concepts *physical* and *reality* to mean the same object; i.e. in saying "reality" we are also saying "physical", they are just two concepts denoting the same "thing"¹ - then concepts and postulates dealing with the physics do not have implications for other disciplines, e.g. the science of medicine, since by this definition medicine deals with reality and might as well be the starting point for all sciences, by launching this new principle – as shown in this paper.

Today the science of medicine is mostly based on two postulates:

1. Causal reasoning, i.e. to make sense of cause and effect.
2. The human body is controlled by the laws of physics.

The new postulate for medicine is:

3. *Nothing exists in isolation, i.e. everything exists in relations.*

This postulate is valid for scientific objects as well as for human sciences, i.e. the postulate is at the most fundamental level, before we even think of science and humans; this is valid for all objects and all beings.

However, let us first investigate postulates 1 and 2.

1. When it comes to causal reasoning, i.e. to make sense of cause and effect, we know that the three causes of diseases are injury, toxicity and deficiency. We also know quite well which components causes diseases, e.g. processed food, physical and emotional stress, electromagnetic radiation, lack of calories and water, lack of rest, lack of fresh air, lack of sun and lack of love. However, how to describe the detailed and concrete chain of occurrences linking these components to the diseases? How and in what way does a cause generate an effect?
2. The human body is controlled by the laws of physics. Over time we must expect and accept that the laws of physics will be changed, so the science of medicine should not rely too much on them. Physics still has unsolved questions to deal with, e.g. how to unite the theory of general relativity and theories of quantum. So the postulates which rely on physics are not, over time,

stable enough for medicine to have as a prerequisite. A new paradigm of physics will come, as it always has done.

Sometimes postulates 1 and 2 are confusing, stating that a force, a causal power, is the cause of an effect, e.g. a disease. Force is a concept used in physics, e.g. a body in rest needs some the force to go into motion, and it is a force that causes a unit to change its motion.

Based on statistics, such as Austin Bradford Hill's nine criteria, we identify smoking as the cause and lung cancer its effect. This is a causal relationship, but, again, *how to describe the chain of cause and effect in concrete terms?*

This mechanical view finds nature as a system of causes and effects in space and time². But this view restricts our mind and, since we must look further, it can also damage our thinking. This is understandable, but it will damage our opportunities to understand more of the reality of medicine and the human body.

Let us now turn to postulate 3 and how it might explain diseases and how that would affect medicine as a science.

First we need to define some important concepts as below. Then we have a platform for understanding the human body from a new perspective, even if this is obvious for most physicians, i.e. nothing exists in isolation, not a part, not a system; everything is connected to continuous flows and impacts between all parts and all systems. Consequently all cells and organs in the human body receive and deliver flows of packages in and out of cells and organs each microsecond; the human body also receives and delivers flows of packages outside of the body, e.g. eating, breathing, working, loving and socializing.

Based on the postulate, the fundamental concepts and the fundamental equations behind the laws of relations will be the following:

The concept relation³ relates to reality by showing that there are relations between all parts in the Universe, where:

- 1) **a, b, c ...** are any system, subsystem, unit or part in any field of the Universe, e.g. suns, planets, moons, galaxies, atoms, molecules, cells, organs and species.
- 2) The relation, **R**, is a flow (wave) of packages, p_{1-n} , e.g. quarks, protons, neutrons, electrons, photons, proteins, fats, polysaccharides, between a, b, c ... in any field of the Universe.



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Based on the postulate - *nothing exists in isolation, i.e. everything exists in relations* –in combination with 1 and 2 above, the principle is

$$X=aRb$$

The principle of relations claims that between all systems and between all parts of any system, S, there is a continuous flow of packages p_{1-n} , i.e. in aRb, $R = p_{1-n}$, and the formula is

$$S = ap_{1-n}b$$

S is a complex of relations between all parts and elements in the system, i.e. the a, b, and c are complicated systems, which send and/or receive flows of packages, i.e. p_{1-n}

$$R = \sum p_{1-n} = p_1 + p_2 + p_3 \dots p_n$$

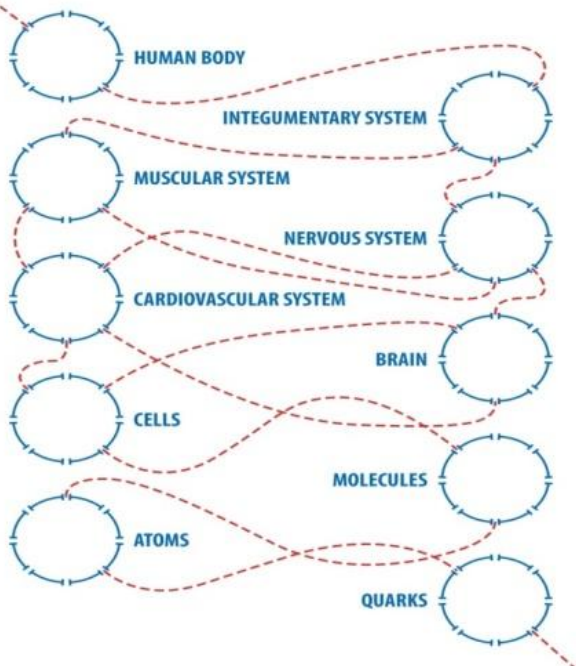
The big challenge is now to identify all the p in all relations and to identify, certainly and concretely, the logic of

$$S_1 = (a_1R_1b_1)R_2(a_2R_3b_2) \dots$$

The Principle of Relations is based on these statements:

- 1) There cannot be any fixed atomic facts and elementary propositions.
- 2) There are no values which are true or false, but only true or false at a certain point of time.
- 3) Based on the postulate, the concepts of conjunction, disjunction, implication, negation and plus are not valid. Nature is not based on the logic of conjunction, negation and implication; it is based on the logic of relations.

This is the model of the Human Body, based on the alternative postulate, *nothing exists in isolation, and everything exists in relations*:

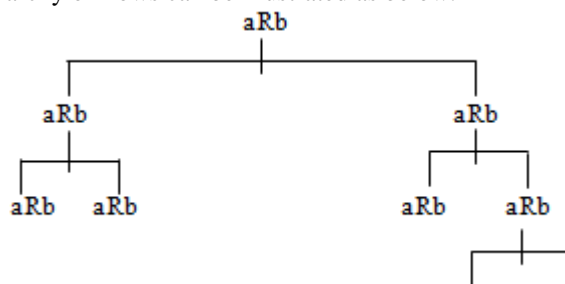


The system of the human body consists of flows of packages between different subsystems, i.e. the integumentary system,

S_i , the skeletal system, S_s , the muscular system, S_m , the nervous system, S_n , the endocrine system, S_e , the cardiovascular system, S_c , the lymphatic system, S_l , the respiratory system, S_r , the digestive system, S_d , the urinary system, S_u and the reproductive system, S_{re} .

The flow of packages will over time change each of a, b, R and aRb. At t_1 the structure and its contents have one appearance and at t_2 the structure and its contents have another appearance.

When we apply the principle to the human body, the hierarchy of flows can be illustrated as below:



Now we must identify all a, R and b, which leads us to this table:

$R_1 =$	$a_1 =$	$b_1 =$
$R_2 =$	$a_2 =$	$b_2 =$
$R_3 =$	$a_3 =$	$b_3 =$

And soon for billions of billions of a, b and R within the human body.

R contains p_{1-n} and the function of R is as below:

$$R = \sum p_{1-n} = p_1 + p_2 + p_3 \dots p_n$$

This content will over time change any structure a, b, c in the human body, from the lowest element in the cells to relations between subsystems. Within the body there are a complex R_{1-n} .

If S_H stands for the system of the human body, then $S_H = (aRb)^{\infty}$ consists of $S_i, S_s, S_m, S_c, S_l, S_r, S_d, S_u, S_{re}, S_n$ and S_e , where each S_{1-11} has its own system of R_{1-10} .
 $S_H = (aRb)^{\infty} = S_iR_1S_mR_2S_c R_3S_lR_4S_rR_5S_dR_6S_uR_7S_{re}R_8S_nR_9S_e R_{10}S_s$

Based on the postulates and the Principle $X=aRb$, we can look into the System of the Human Body.

With the language of the principle of relation we can summarize the system, S, for the human body, H, as $S_H=(aRb)^{\infty}$

Since there are 100.000.000.000.000 cells, i. e. 100 trillion cells, where each cell is a living unit, between all cells and organs there are billions and billions of relations, R.

As we all know the human body is a complex system of relations between subsystems, down to the smallest elements in and between cells.

When any R is broken or damaged, there will be a disorder and disease.

Research has clarified how cells shuttle molecules, how vital chemicals are transported within and between cells, how the vesicles contain and release these chemicals and find the right destinations and release the chemical in the right place.³ Now we have to identify R_{1-10} between S_{1-11} and all R_{1-n} within all S_{1-11} .

Consequences based on the Principle of Relations

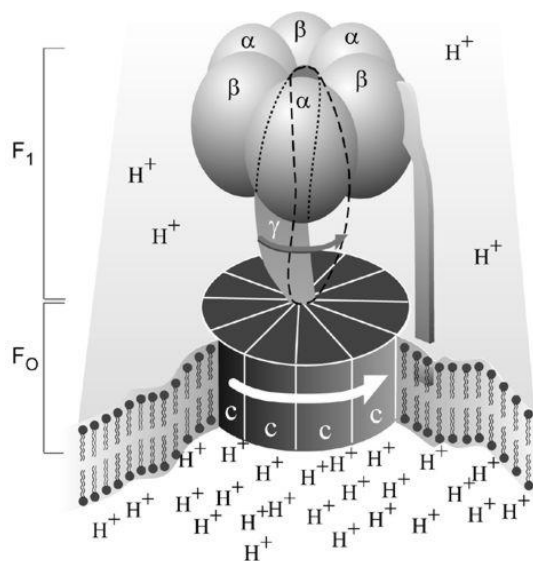
Is ATP synthase a scientific illusion?

Let us now explore the idea behind the scientific explanation of ATP synthase and give an alternative interpretation based on the principle of relations.

A scientist, like any man, can only observe a small part of reality, even by using a microscope or a telescope. Beyond a certain size of nanometre or of light years our apparatus and senses cannot help us to see *how reality behaves*.

Even though science has shown that phenomenon such as the ATP synthase is a true object, existing in reality, and science has shown how it behaves, no one has ever seen it directly. It is indeed indirect proofs and equations, and this can be the phenomenon of Plato's cave. Furthermore, indirect proofs cannot handle the behaviour of reality; they are at the best fixed images.

The most famous image of ATP synthase⁴:



The question I want to raise is this:

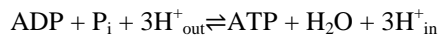
Does ATP synthase actually exist?

Is it based on an optical illusion and invalid equations?⁵

But before answering these questions, we will have to study how ATP synthase is explained in contemporary science:

The function of ATP synthase is to produce ATP, adenosine triphosphate, which is an organic compound, i.e. ATP contains carbon-hydrogen bonds.

Contemporary science views ATP synthase as a catalysed reaction, shown as below:



ADP consists of $\text{C}_{10}\text{H}_{15}\text{N}_5\text{O}_{10}\text{P}_2$ and ATP consists of $\text{C}_{10}\text{H}_{16}\text{N}_5\text{O}_{13}\text{P}_3$.

The reversible reaction, i.e. \rightleftharpoons , means equilibrium, i.e. balance and no net change between the components, as explained by the constant K_{eq} .

K_{eq} is the equilibrium constant expressing the ratio of products and reactants at equilibrium.

The meaning is that if a system is not at equilibrium, the system itself will direct moves towards equilibrium. *However*, I want to challenge this notion.

In the case of ATP synthase, these equations and their images reflect each other, i.e. the image is a mirror of the formula. Is it possible that these mirrors are illusions and that we only see what our minds are programmed to see?

An alternative interpretation of ATP synthase

Based on the principle of relations, the logic of ATP synthase is not valid, since the concepts "conjunction", "disjunction", "negation" and "implication", in combination with truth function and the statements of fixed atomic facts and elementary propositions, tell us that there are no values which are true or false, except at a certain point of time. Then the reversible reaction, \rightleftharpoons , is not valid and equilibrium does not exist.

Then, when we apply the logic of aRb to our understanding of ATP synthase, the conclusion is different:

- 1) There are flows of packages in one direction only, e.g. flows of packages are transported into our cells.
- 2) Equilibrium does not exist in nature.
- 3) The symbol \rightleftharpoons and its meaning of "reversible" reaction is not valid.
- 4) Carbon-hydrogen bonds do not exist, since it is packages of flows that fulfil the task.

Flows of packages through the body are enabled by the blood pressure securing continuous flows throughout the body.

The circulatory system manages the flow of packages, consisting of blood with its contents of nutrients, such as amino acids and oxygen, waste and carbon-dioxide, which are all transported by vessels.

As it seems, *the blood-pressure is enough* to fulfil the function of supplying the cells and mitochondria with what is needed and then to clean up and transport the waste. This happens in a continuous performance.

Then, is the ATP synthase, the so-called molecular machine, an illusion? Where can we see this "Nano machine"? Are there any photos of this phenomenon? Is it only an image made by man? As it seems, it is only an image made by man.

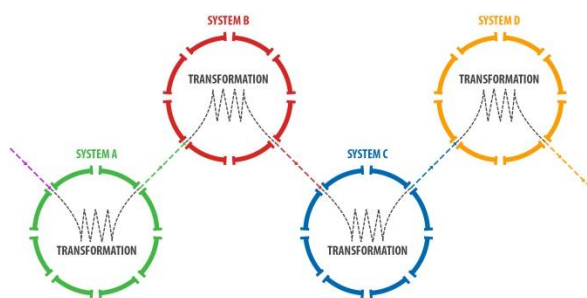
Based on the principle of relations both the image and the equations are illusions.

To further understand how the theory of relations impacts the ATP synthase we must find out all connections in the body and how all flows depend on each other.

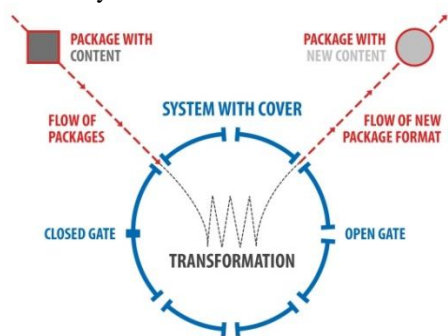
Based on $X = aRb$ and $S = ap_{1-n}b$, any system is and can be described as complex flows. We might call them wave functions, since a wave function is a flow of masses. It functions as a logistic system. Any (transportation-) system has the same logic. It contains instructions as to how masses are delivered. There are addresses, carriages, details of how the masses are to be loaded and unloaded, sizes of the masses, how the masses fit into different parts of the transport system, calls for masses, “doors” to the cover of a system, and a mechanism to open “doors”. At all points of delivery the masses will change appearance. They will look different. They will be transformed.

Let us call the mechanism of transformation a *Transformer*. The Transformer transforms incoming packages, such as the molecule of carbonic acid CH_2O_3 , the molecule of sugar $C_{12}H_{22}O_{11}$, the molecule of protein $C_9H_{11}NO_3$, the molecule of fat $C_{18}H_{34}O_2$ and the molecule of oxygen O_2 .

The model below is an overview and conceptualisation of the role the Transformer plays in the human body:



The gates are crucial and important, and they can schematically be shown as in this model:



Now, what will the Transformer look like and how will it behave in order to transform packages?

The circulatory system manages the flow of packages, consisting of blood with contents of nutrients such as amino acids, oxygen, waste and carbon dioxide, which are all transported by vessels, ending in the cell.

The question to be asked now is whether the blood pressure itself is enough to fulfil the function of supplying the “end-stations” in the cell, e.g. mitochondria, and then move out the waste. Or does the cell need the molecular machine?

Based on the principle of relations the hypothesis is that there is only one specific pathway for every piece of mass, i.e. when any particle approaches the membrane of a cell, the cell’s structure will accept the one that fits.

This goes for every membrane, the outer and inner membranes for all cells, as well as for all levels of any system, e.g. the entire human body and any specific organ.

Then, as one consequence, the so-called “Brownian motor”, based on the so-called “Brownian motion”, does not exist and cannot do so, since randomness is impossible. If randomness, in terms of desultory and casual events, occurs, then the flow of packages will be damaged.

The same principle of flow applies to all systems and all levels and all masses of reality, e.g. the Earth, the Universe, the human body, organs and the cell.

Now we are back to the phenomenon of the Transformer⁶.

The Transformer

A Transformer is *the mechanism which directs and leads packages*, e.g. protons, electrons and nutrient molecules, within the cells in the human body, as is to be shown in this section.

Throughout reality the same principle applies to the mechanisms of a Transformer’s functions, e.g. the Earth, the Sun, the Moon, the human body, galaxies, organs and cells in the Human Body.

Any system has covers. It can be just one cover, but mostly there are many covers within the same system. One cover protects the next layer. There can be many layers in a system, e.g. the human body is entered via hands and mouth - stomach - small intestine - large intestine - kidney - liver - cell; it has its gate and its transformer - mitochondria - chromosome - DNA - gene - ATGC.

ATP synthase is one transformer which functions in membranes, i.e. the thylakoid membrane and the inner mitochondrial membrane.

Since ATP synthase is an enzyme protein, we can expect that all enzymes are transformers.

In the cover, e.g. cell membrane or the crust of the Earth, there are Transformers. Flows are *directed* via the Transformer into the systems and different subsystems, and so on for all systems and subsystems.

The equation $ADP + P_i + 3H^+_{out} \rightleftharpoons ATP + H_2O + 3H^+_{in}$ will now change, since it is an unusable and not valid equation.

Instead, we must find out the components in all chains of flows. Like a train with wagons, as our first imagination, proteins, carbohydrates and fats can show up like this; the commonest components and the most used are these:
 ... C - H - O - H - N - O - H - C - O - O - H ...

Depending on the position and seating, the formula will show up in different shapes. The most common contents are the following:

- 1) The atoms C – H – O will be present in the flows of fats, e.g. for Cerotic acid $\text{CH}_3(\text{CH}_2)_{24}\text{COOH}$, and for the flows of Carbohydrates, e.g. Sugar $\text{C}_{12}\text{H}_{22}\text{O}_{11}$.
- 2) The atoms C – H – O – N will also be present in the flows of proteins, e.g. Insulin $\text{C}_{257}\text{H}_{383}\text{N}_{65}\text{O}_{77}\text{S}_6$, where S stands for Sulphur.

Based on aRb there are no bonds between atoms, there are flows of packages that push and pull the particles together.

Then the formula will be
 $S_1 = (a_1R_1b_1)R_2(a_2R_3b_2) \dots$

S_1 is a complex of relations between all parts and elements in the system, i.e. a, b, and c are complicated subsystems, that send and/or receive flows of packages, i.e. p_{1-n} .

Then

$$R = \sum p_{1-n} = p_1 + p_2 + p_3 \dots p_n$$

The big challenge is now to identify all the p in all relations and to identify, certainly and concretely, the logic of

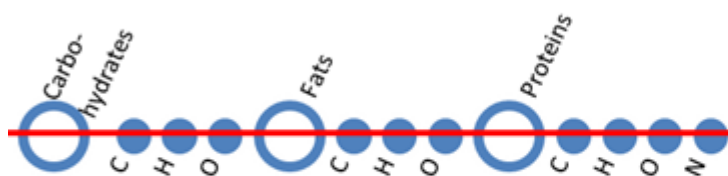
$$S_1 = (a_1R_1b_1)R_2(a_2R_3b_2) \dots$$

The size and volume for any system regulate the flows in and out of any system. When packages leave any system, new packages can come in, i.e. they are needed.

How, then, does the Transformer function?

Examining the entire idea of the ATP synthase being a molecular machine must be redone. Taking the Transformer in mind, the conception about ATP synthase may be the most misunderstood part in the human body. When using the concept and phenomenon of a Transformer the conclusion is different. In the following I will explore this path and establish the groundwork for seeing the ATP synthase in relation to the Transformer.

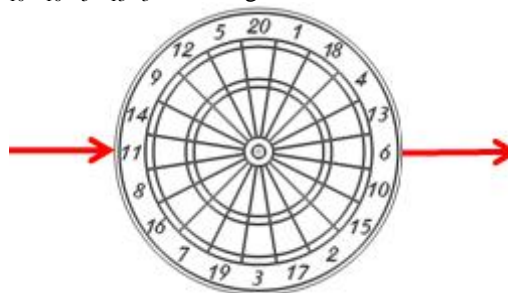
The cover of any system has a gate where the Transformer is located. When particles get close to the cell, only those



ATP synthase is a Transformer between molecules using the masses of elementary particles. The conclusion is that ATP synthase does not exist, it is not found in the cell. It is only

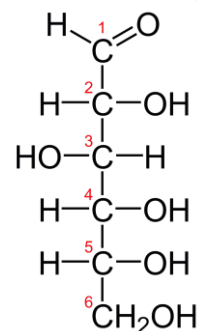
particles that fit perfectly can come in. The transformer can be seen as a paddle wheel, where each paddle can only accept and take one specific particle at a time. The paddle wheel, i.e. Transformer, takes in one package, particle, after another, e.g. O, H, N, P and C, and out comes a new molecule, e.g. ATP: $\text{C}_{10}\text{H}_{16}\text{N}_5\text{O}_{13}\text{P}_3$.

The shape of a paddle wheel will differ depending on where it is located. Some examples as below might stimulate our imagination (the size will be measured in nanometres, approximately 50-200 nm), where each number can accept only one specific particle from a molecule, e.g. H, N, P, C and O, at the left side, and then a new molecule will occur, e.g. $\text{C}_{10}\text{H}_{16}\text{N}_5\text{O}_{13}\text{P}_3$, at the right side:

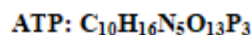


Let's use our imagination again.

The molecule of a D-glucose chain as below can be seen as a flow of packages, which is directed by the Transformer:



The blood transports carbohydrates, proteins and fats, and blood cells contain molecules with the content of C, O, H, N, S and P and of course many others. Schematically it can be illustrated like this:

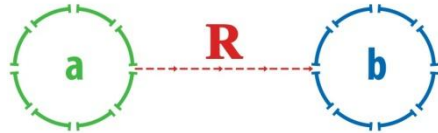


an imaginary thing, based on wrong and not valid postulates and theories of physics and chemistry.

Based on the Principle or Relations, P_R , diseases will occur when R is broken. A broken R is a disorder behind diseases.

The basic questions and statements are:

1. What is the content of R?
2. How is b changed?
3. How is a changed?
4. How does content pass the cover of a and b?



5. When any R, i.e. continuous flow of packages p_{1-n} , is broken, disorder and damage will occur.
6. When any R in S_H is broken, there will be a disease: cancer, high creatinine, AV-blocks, Alzheimer's Disease, kidney failure, stroke, heart attack
7. How does gate failure affect R and b, i. e. if the doors between R and b are closed and the interface is out of order?

We know that in normal opening and closing of-ion channels, the flow of ions passes through the membrane of a cell. Our first suspicion is that, for some reason, the gate will not open. So, how can a gate recover from in activity?

Flow-block as a cause of diseases

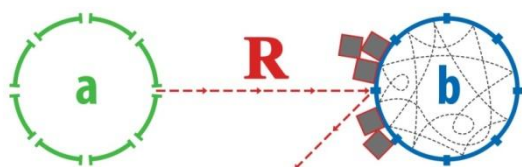
Based on P_R , diseases will occur when R is broken. A broken R is a disorder behind diseases, such as:

- AV-block III
- Stroke
- Heart attack and cardiac infarction
- Alzheimer's disease-AD
- Schizophrenia
- Kidney failure
- Pain, e.g. in spine, bedpan and muscles
- Cancer.

When transports in and out of the cell are blocked, the transport of molecules, endocytosis, and waste, exocytosis, cannot be performed.

Flow-block as a cause of Alzheimer's Disease-AD

The model of Alzheimer's Disease:



So far the facts, based on science, which correspond to the model of aRb, are:

- 1) Amyloid, plaques and neurofibrillary tangles are involved.
- 2) Loss of neurons and synapses.
- 3) Inflammation.

- 4) Lower levels of Neurotrophic factors and the brain-derived neurotrophic factor, BDNF, (protein).
- 5) The activity of the neurotransmitter Alpha-7 nicotinic receptor (protein) is modulated by BDNF.

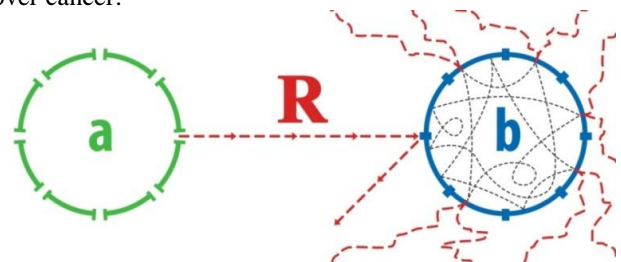
Flow-block as a cause of cancer

When gates are closed, no packages can either come in or leave the cell. Then the cell will be destroyed inside, and outside it the packages will be crowded.

The basic logic is this model:



When R is damaged, this will happen, shown by the model over cancer:

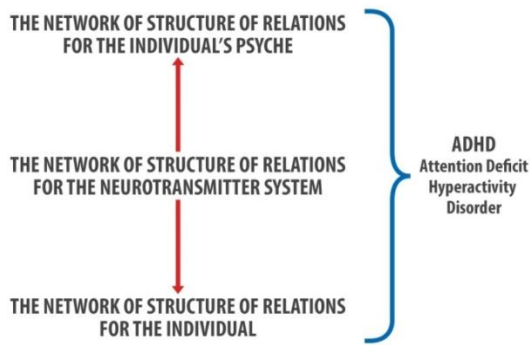


The thesis in established science is that damage of DNA causes cancer. However based on P_R it is not genetic disorder that causes and disrupts the cells' normal functioning, since genetic disorder, if there is any, at the first point is caused by a flow-block or damaged R, i.e. damaged flows of packages, in the cell.

The principle applied to ADHD

ADHD, Attention-Deficit/Hyperactivity Disorder, means difficulties in concentration and control of activities and impulses.

Based on aRb it is the society and the relations in the societal network that cause ADHD, via damage in the brain's neurotransmitter system. As for now, we understand that flows of packages are essential for normal functioning in any system and when flows of packages of dopamine and norepine phrine in the brain's pathways are damaged, ADHD will occur. To some extent there are similarities between the network structure of relations for the individual human being, the network structure of relations for the neurotransmitter system in the brain and the structure of the human psyche. This is based on the flow of packages between the three levels, thus causing ADHD, as shown in the figure below:



ADHD is increasing in countries such as the USA: one report shows figures of over 40% increase over a period of eight years, from 2003 to 2011; and there are indications of increase in most parts of the world. Based on aRb, ADHD gives an indication that society in all its complexity must focus on dealing with ADHD.

Modern society has some new phenomena such as ADHD, burn-out, Alzheimer’s, ADD, DAMP, dementia and similar diseases. The major challenge is to overcome these diseases, since it seems that they all area consequence of a dysfunctional society and dysfunctional networks.

The principle applied to human consciousness and psyche

Based on aRb, consciousness is the result of the flow of packages which occur from objects outside the human, but it can also occur from objects inside the human, such as body pain and dreams. These packages constitute the memory, which is the consequence of the same molecular movements over and over again, until there is a pattern in the brain, which will be triggered by the same stimuli of objects. The structure and pattern of the memory is a continuous flow of packages. It will only change by the arrival of new packages, depending on how strongly the pattern has been established. In the worst case, when a mental disorder has come up, it is possible to make the brain healthy again by using an intense flow of alternative packages.

Consciousness is then a combination of memory patterns of flows of packages and the flow of packages from outside objects, i.e. consciousness is a flow of thoughts in real time.

The structure of the human psyche, b, is affected by R, from a. When R is damaged, the psyche will develop diseases such as schizophrenia or suicidal behavior.

Isolation and desolation, i.e. damaged R, is often there as on for diseases of the psyche, based on the postulate.

To fully understand the content in R between a and b in a social network is not easy, however there are some obvious contents, such as food logistics, heating of the house, water supply, clothes and furniture. All that is needed on a daily

basis. When it comes to feelings, emotions and words like love, the content, in concrete concepts, is not that easy to understand. However there is a chemistry of love, where testosterone and estrogen, dopamine and serotonin in are involved, combined with our sense of smell. That is why we need to start at the level of the consequences of a lack of R in these relations.

We know from the research of the sociologist Emile Durkheim and his book Suicide, that in Protestant countries the rate of suicide is higher than in Catholic countries due to the fact that in Protestant countries people are more individual with fewer relations to other people. It is not psychological diseases that are the causes; it is isolation, desolation and loneliness. In Sweden 1.500 persons, mostly men, commit suicide every year.

We know that solitude and loneliness, especially for men, are the reasons, not only for suicide, but also for bad health and early death. It can be compared with smoking too much or drinking too much, which is a frequent combination for solitary and isolated men, since it is mostly men who will be affected. Men in solitude die much earlier than married men.

Loneliness and isolation, which is damaged R, increase the risks for both mental health and physical health, such as high blood pressure and heart problems, especially for older people. New born children can in the worst case die without physical contact. Loneliness kills. Loneliness predicts depression, suicide, cancer, cardiovascular diseases, stroke, risk of dementia, high cholesterol; it is infact a life- threatening condition.

Everyone needs love and care in solid relations. If the closest relations are dysfunctional with social isolation, especially from an absent and charismatic father, the risk of schizophrenia will increase. How the damaged relation R will affect a child is rather well known, however it has to be explored again based on aRb.

Furthermore, the individual’s relations in the family, with relatives and friends, are also affected by the surrounding society, which in turn is dependent on national and international relations.

It is family and friends who make us happy; to be famous and to have riches and wealth, which instead can lead to isolation and loneliness, do not make us happy. What a paradox!

To maintain good health, both mentally and physically, loneliness and isolation must be conquered. To be part of a network of people will bring us a happy, healthy and long life.

We need to explore this table in detail:

The individual’s psyche	Systems, parts and elements		Relations	Systems, parts and elements		Broken relation	Disorder/disease	Repair of relation
Flow	a	Structure of a	Content of Packages	b	Structure of b	Isolation	Suicide/Early death	

The Paradigm of the Human Body - P_H- as it shows up today in contemporary science of medicine:

P_H is based on these statements, concepts and theories:

- 1) The science of the human body is built on the analogy with a house: the sum of different parts constitutes a human body.
- 2) Physiology as science uses concepts based on concepts from the mechanical, physical, bioelectrical and biochemical sciences, in the study both of human organs and of the cells of which they are composed.
- 3) The human body is made up of certain elements.
- 4) The focus is on organs and systems.
- 5) Most research is done on subsystems.

The Principle of Relations, P_R, is based on these statements regarding the human body:

- 1) The human body is a system of relations consisting of flows of packages.
- 2) $S_H = (aRb)^{-\infty} = S_1R_1S_mR_2S_cR_3S_1R_4S_rR_5S_dR_6S_uR_7S_{re}R_8S_nR_9S_eR_{10}S_s$.
- 3) There is a system of hierarchical systems between all aRb.
- 4) Diagnosis can be made by an analysis of R, as a tool, which can then correct R, and so prevent, cure and reduce disease.

P_R has these consequences:

- 1) When any R in S_H is broken, there will be a disease such as cancer, high creatinine, AV-block III ...
- 2) When any R is broken, disorder and damage will occur.
- 3) There is a need for a survey and a map of all R_{1-n} in the human body.
- 4) Now, tools can be created that will influence broken R, in order to repair, prevent and reduce diseases.
- 5) The Principle of Relations has already been analyzed when it comes to the transport system in cells. Cells organize the route of the packages, P_{1-n}, and how the packages of molecules in vesicles find their destinations and deliver the content.⁷ This mechanism, R, will cause diseases when it is disordered. Research based on correlation can now be changed to research based on relations. Most research today investigates how phenomena exist at the same time, where one phenomenon is the cause of the second phenomenon, e.g. how smoking cause's lung cancer and how bacteria cause inflammation.

Diagnosis with a tool of R, then correcting R.

- 1) A pace maker corrects the beating of the heart and overcomes AV-block III.
- 2) A "brain maker" corrects the relation between cells in the brain and makes them work normally (not yet invented).
- 3) Etc.

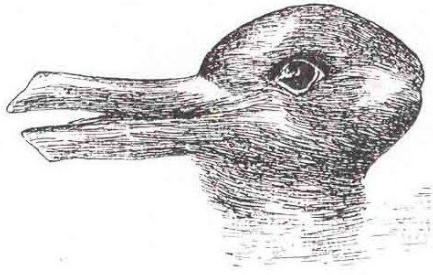
Now we can start up summarizing all relations and diseases by this table:

Human body	Systems, parts and elements	Relations	Systems, parts and elements	Broken relation	Disorder/disease	Repair of relation
Flow	a	Structure of a	b	Structure of b		
Blood	oxygen	Structure of a	bind to hemoglobin	cells		
	food		blood plasma via blood vessels	cells		
Lymph	lymph nodes		blood without red blood cells via lymph vessels	lymph nodes		
Blood	blood plasma		proteins via vesicles	molecule		
Urine			Via channel systems neprons are connected to ureter	urinary bladder	flow-block in the kidney	the kidney will develop to cyst and at the end stop functioning
Blood	kidney		via blood fat stop ...	kidney		high blood pressure
Electrical signals in the heart	electrical conduction system of the heart			impulses generated from SA-node stimulate the cardiac muscle	AV-block III	At the end death
cell			glucose supply	brain	gating failed and no glucose	Pacemaker or gate repairing of the ion channel
cell				species		Alzheimer's
organs				DNA		
species				DNA		
cell				organ		
molecule				organ		
cell	gating		glucose	cells	no glucose to cells and a lot glucose to cancer cells, due to failed gating	cancer
						Schizophrenia
						stroke
						heart attack
cell					changes in the various pathways increase glucose metabolism	cancer

To be continued ...

Notes

- 1) Gottlob Frege in his paper *On Sense and Nominatum* distinguishes between sense and "nominatum", which makes the conclusion that the concepts *physical* and *reality* are the same and more complicated, since "sense of a proper name is grasped by everyone who knows the language of the totality of designations of which the proper name is a part"; but the following example given illuminates the distinction: "The nominata of 'evening star' and 'morning star' are the same but not their senses". However, we have to change the sense of these two concepts. From the book *The Philosophy of Language*, by A. P. Martinich, pages 217 – 229.
- 2) *The Mechanical Mind: A Philosophical Introduction to Minds; Machines and Mental Representation*. It gives a good insight into the idea of cause and effect, at pages 112-123.
- 3) This statement/requirement and the following theory are explained in two books, i.e. *The Principle of Relations*, Cambridge Scholars Publishing UK and *The Theoretical Foundation of Physical Reality*, AuthorHouse UK.
- 4) <https://www.nobelprize.org/prizes/chemistry/1997/9171-pressmeddelande-nobelpriset-i-kemi-1997/>



- 5) Ambiguous images can also illustrate the problem. The best-known image is the rabbit-duck illusion, which Wittgenstein explained by “seeing that” or “seeing as”:
- 6) Since the concept *energy* is not valid, based on the requirement that every concept has to represent the physical reality directly, *ATP synthase is a Transformer*. It is not dealing with energy supply, but with the transformation of masses to fit in the next step in the flow.
- 7) The Nobel Prize in Physiology or Medicine 2013: "for their discoveries of machinery regulating vesicle traffic, a major transport system in our cells".

References

- [1] The Nobel Prize in Physiology or Medicine 2013
- [2] The Principle of Relations, Cambridge Scholars Publishing UK
- [3] The Mechanical Mind: A Philosophical Introduction to Minds; Machines and Mental Representation
- [4] Gottlob Frege paper *On Sense and Nominatum*